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ABSTRACT

In an exploratory study conducted for the Women's Action Program of HEW, the aims were to identify and explore the barriers to success that women face as MODVOPPP (Medicine, Osteopathic medicine, Dentistry, Veterinary medicine, Optometry, Podiatry, Pharmacy, and Public health) school applicants and students and to describe the discrimination process, if any, that limits women's entry into the health professions. In this volume on pharmacy, the profession's history, work focus, organization, and women's roles and status in it are reported. Current trends and issues, the professional training sequence, a description of who the students are, and beliefs and expectations of male and female students are discussed. Special recommendations are made, and statistical data, interview responses, and a bibliography are also included. (LBH)

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ED143295

AN EXPLORATORY STUDY OF WOMEN IN THE HEALTH PROFESSIONS SCHOOLS

VOLUME VII: PHARMACY

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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HE 009 219

WOMEN'S ACTION PROGRAM
Department of Health, Education, and Welfare

EXPLORATORY STUDY OF WOMEN IN THE HEALTH PROFESSIONS SCHOOLS

VOLUME VIII: WOMEN IN PHARMACY

Prepared for

The Women's Action Program
Office of Special Concerns
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URBAN AND RURAL SYSTEMS ASSOCIATES (URSA)
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Finding an internship without prior experience in a pharmacy is more difficult for women. One pharmacist flatly said, 'I would rather hire a guy.' Outside of the lack of experience is the extreme favoritism toward specific fraternities. Various pharmacies are unofficially 'KY only' or 'Phi Delta only' or wife, sister or girlfriend of a fraternity member. Once out in the field, some women I know have been laid off or have had their hours cut recently, although their pharmacist husband has not been laid off or had his hours cut. In a certain course here, the male faculty member has let the class know that he prefers males in the profession and verbally insulted females (in general) in class. It all adds up--we aren't really wanted. (Fifth year student, female)

I have felt no discrimination by students or faculty. However, I am reasonably sure that once I start my internship I may feel that I need to perform better on all levels than the average male in order to distinguish myself as capable in the eyes of my preceptor and the public. The only pharmacy I have approached regarding work, I learned the owner 'would not hire a girl pharmacist.' I hope this is not indicative of the general attitude but rather would hope that I will be judged on the basis of ability and not sex... (Third year student, female)

PREFACE

The Exploratory Study of Women in the Health Professions Schools was conducted by Urban and Rural Systems Associates (URSA) for the Women's Action Program (WAP) of the Department of Health, Education, and Welfare (HEW) under Contract Number HEW-OS-74-291. The study focuses on eight health professions generally known and referred to as the MODVOPPP professions: medicine, osteopathic medicine, dentistry, veterinary medicine, optometry, podiatry, pharmacy, and public health.

Study Purpose

The study's central tasks have been to identify and explore the barriers to success which women face as MODVOPPP school applicants and students and to describe the discrimination process, if any, which limits women's entry into these health professions. Its central purpose--indeed its primary product--has been the development of conceptual models of the recruitment, admissions, and education systems designed to maximize equal opportunities for women and to encourage their success as school applicants and students in the MODVOPPP professions. The models are the basis for guidance and recommendations intended to assist HEW, the MODVOPPP educational and professional associations, the MODVOPPP schools, and appropriate others to eliminate barriers women face and/or to minimize their impact.

Study Design and Methods

The study was purposefully exploratory in its design. According to the Request for Proposal (RFP) which resulted in the contract, "The exploratory approach taken for this study is based upon the realization that not enough is known about the process of discrimination to permit more systematic research, or to assess alternative forms of intervention designed to achieve equal opportunity based on sex." A common purpose of exploratory studies is to identify and raise issues important to an understanding of a topic under investigation. The power of exploratory research is to illuminate issues in settings and systems which are complex and where simple variables and variable clusters are inadequate

to explain and establish causal relationships. Thus exploratory studies do not normally test hypotheses, they generate them. Their purpose is not to quantify the frequency, magnitude, or distribution of events or phenomena, nor do they measure statistical correlations among events or between events and characteristics of people, institutions, professions, or other categories of systems variables. Rather their purpose is often to define complex systems through descriptive or predictive models which may be subjected to a variety of tests or evaluations in subsequent stages of research. This study's goal of developing success models for women as applicants to and students in the MODVOPPP health professions schools was thus the basis for selecting an exploratory study design.

URSA implemented the design by collecting and analyzing extensive data about the MODVOPPP professions and schools and other pertinent topics and issues. Information was gathered from the following sources:

- Interviews with almost 600 individual MODVOPPP school administrators, faculty members, and students in 27 MODVOPPP schools around the country. These were open-ended, purposefully unstructured interviews designed to surface the widest possible range of issues from a broad spectrum of respondents. They were supplemented by over 60 group interviews in which an estimated 440 men and women students participated.
- Interviews and correspondence with staff members of the professional association, student association, women's professional association, and/or association of schools and colleges in each of the MODVOPPP professions.
- Written documents prepared by and collected from the MODVOPPP schools and associations such as recruitment brochures, school catalogues, financial aid (loan and scholarship) programs and policies, school admissions committee procedures, descriptions and instructions for use of centralized application services, and so on.
- The professions' various current and, when available, historic journals.

- Available statistics on the professions' practitioners, schools, applicants, and students.
- Interviews, correspondence, and meetings with individuals and groups conducting special studies and research in and about the professions, about women in the professions, sex role behavior and learning, and other related topics; and surveys of available studies, research, and relevant literature in these areas.
- Interviews, correspondence, and meetings with representatives of HEW health policy and program agencies and reviews of pertinent federal legislation, regulations, guidelines, and other documents related to health education policy and programs.

All of this information was subjected to qualitative forms of analysis intended to identify conflict and consensus among various sources of information regarding barriers women face as MODVOPPP applicants and students and to identify exemplary policies and programs sponsored by MODVOPPP schools and associations which appeared to eliminate and/or minimize the impact of these barriers. These analyses were the basis for developing the recruitment, admissions, and education models called for by the contract.

Scope of Study Research: Variations Among the MODVOPPP Professions

MODVOPPP students and schools are all designated as potential recipients of federal financial aid under the Comprehensive Health Manpower Training Act of 1971 (PL 92-157) Public Health Service Act; and schools receiving assistance under the Act are subject to its Title VII affirmative action and non-discrimination requirements.

Inclusion in this Act is the common basis on which the MODVOPPP professions were included in this study. Beyond this common feature, however, and the obvious fact that the MODVOPPP professions are all health professions, preliminary study research suggested that in many significant ways the professions are more different than they are similar and that these differences might have great significance for women as applicants to and students in the schools. The

MODVOPPP professions vary greatly in size, for example, with the largest, medicine, having well over 300,000 active practitioners and the smallest, podiatry, having barely more than 7,000. This variation also appears in the number of operational training institutions with medicine having over 100 schools and podiatry only five. The professions differ in public visibility and general knowledge. Everyone knows of doctors, dentists, and veterinarians and knows generally what they do. Not everyone knows what DOs (doctors of osteopathic medicine) or podiatrists are or what they do. Some of the professions are clearly defined as and accorded the social status and other rewards of a profession while others, in the public view, may be more often thought of as a good occupation or a good business. To some extent varying public definitions of profession vs. occupation vs. business reflect different practice patterns and organization. Some of the professions--for example, optometry--are more often practiced in entrepreneurial business forms such as solo or partnership practice than others such as public health which includes opportunities for practice in schools, hospitals, health departments, and other employer institutions.

Variations in professional training are also great. A first professional degree sufficient for practice is possible in some sections in public health within a year; in medicine the minimum is normally five years and the average, depending on specialty selection, much longer. Cost of training varies. Entry requirements to the schools vary. Curriculum content and structure among professions vary.

Finally, and most obviously, the presence of women as practitioners and as students, both historically and currently, varies enormously among the eight MODVOPPP professions, and some are much more heavily sex-typed than others. In pharmacy, for example, about 9% of the active practitioners were women in 1970; however, increasing enrollments of women in schools of pharmacy resulted in women representing 24% of first year enrollments in 1970-71. By contrast, women represented only 3% of active dentists in 1970 and only 2% of first year enrollments in 1970-71.

These most obvious differences among the professions--and others not so obvious--led the URSA study team to conclude that a portion of our research effort must be devoted to an examination of each of the MODVOPPP professions singly and as a separate and distinct social system with its own particular history, forms of practice, professional and training institutions, and practitioners and students. The purpose of conducting eight "mini-studies" on the MODVOPPP professions was to identify any characteristics of each profession--its history, organization, and other important features--which might contribute to an understanding of the role and status of women in that profession and to an identification of the barriers women face as applicants to and students in the profession's schools.

Organization and Contents of the Final Report(s)

As a result of our decision to conduct these studies of each MODVOPPP profession, the study's findings, conclusions, and recommendations are reported in a ten-volume final report. The ten volumes are:

VOLUME I:	Part 1:	DATA ANALYSIS, FINDINGS, CONCLUSIONS, RECOMMENDATIONS
	Part 2:	APPENDICES
VOLUME II:	MEDICINE	
VOLUME III:	OSTEOPATHIC MEDICINE	
VOLUME IV:	DENTISTRY	
VOLUME V:	VETERINARY MEDICINE	
VOLUME VI:	OPTOMETRY	
VOLUME VII:	PODIATRY	
VOLUME VIII:	PHARMACY	
VOLUME IX:	PUBLIC HEALTH	
VOLUME X:	ANNOTATED BIBLIOGRAPHY	

VOLUME I includes a discussion of the study's major findings regarding barriers women face as applicants to and students in the MODVOPPP professions. It presents the recruitment, admissions, and education models which are designed to eliminate those barriers. It suggests a series of further research and action

recommendations for attention by HEW, the MODVOPPP professional and educational associations, and the MODVOPPP schools. VOLUME I also presents a detailed description of the study's methods.

The several Appendices to VOLUME I include samples of the study's data collection and analysis instruments; a summary of the major issues raised by men and women students in group interviews; financial aid sources, policies, and problems students experience; a survey of the roles and status of women in the MODVOPPP professional associations; statistical tables used by the URSA study team in conjunction with field interview and document review data; and a discussion of data gaps confronting the researcher in the MODVOPPP health professions with recommendations regarding data needs. In this regard, it is important to note and to stress that both the relative absence of minorities in the MODVOPPP schools and professions coupled with the absence of statistical data about applicants, students, and practitioners available by both race and sex simultaneously has necessarily limited the findings and conclusions in this study to Caucasian women. To prevent such research limitations in the future, one of our most urgent data recommendations is that statistical data always be made available and presented by both minority status and sex together rather than singly.

VOLUMES II-IX, the individual MODVOPPP professions reports, are designed to serve as a brief introduction to each profession--an introduction which gives a sense of the profession's history, work focus, organization, and women's roles and status in it. The study's ANNOTATED BIBLIOGRAPHY, VOLUME X, includes a list of the major bibliographic sources used in our research and preparation of all of the study's reports.

Taken as a group, the eight individual professions' studies and reports include the bulk of the total study's findings and are the collective basis for the conclusions and recommendations presented in VOLUME I, DATA ANALYSIS, FINDINGS, CONCLUSIONS, RECOMMENDATIONS. Under optimal circumstances, each individual profession's report should be read in combination with and after VOLUME I. However, in anticipation of the possibility that individual profession's

volumes may be read alone, there is a certain amount of repetition and duplication of information among the eight professions reports and between them and VOLUME I.

In addition to serving as an introduction to each profession, VOLUMES II-IX also have two other purposes. First, each of the individual reports includes a short set of recommendations designed to address some of the problems women experience which are unique or particular to the profession and which are best considered for implementation by either the schools directly or by the profession's various key associations.

Second, the extensive use of direct quotes from our field interviews with administrator, faculty, and student respondents in school site visits provides a vivid description of women students' experiences in the male-oriented environments of the MODVOPPP health professional schools; the extent to which these experiences are unique to women and not shared by male students; and the extent to which these experiences serve as barriers to women as applicants to and students in the schools. Collectively these reports of women's experiences also demonstrate that in spite of the very real and significant size, structural, work, and practice differences among the eight MODVOPPP professions, women's experiences in these professions and their schools are more similar than they are different in many important ways.

WOMEN IN PHARMACY

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I. OVERVIEW

Pharmacy has traditionally been a profession concerned with the art and science of preparing from natural and synthetic sources suitable and convenient materials for distribution and use in the treatment and prevention of disease. It embraces a knowledge of the identification, selection, pharmacologic action, preservation, combination, analysis, and standardization of drugs and medicines. It also includes their proper and safe distribution and use, whether dispensed on the prescription of a licensed physician, dentist, veterinarian or, in those instances where it may legally be done, dispensed or sold directly to the consumer.

According to the Code of Ethics of the American Pharmaceutical Association (APhA):

> *...the primary obligation of pharmacy is the service it can render to the public in safeguarding the preparation, compounding, and dispensing of drugs and the storage and handling of drugs and medical supplies. The practice of pharmacy requires knowledge, skill, and integrity; therefore, state laws restrict the practice of pharmacy to persons with special training and qualifications and licenses to them privileges which are denied to others. Accordingly, the pharmacist recognizes his responsibility to the state and to the community for their well being, and fulfills his professional obligations honorably.*

In accordance with these traditional responsibilities, the pharmacist is trained in the compounding of drugs, in methods of testing them for purity and potency, and in knowing their pharmacological effects when administered singly or in combinations as a therapeutic measure in human diseases.

The history of pharmacy in this country has included a long process of separation of the duties and responsibilities of the pharmacist from the realm of the physician. But one of the unique features of the profession remains its dependence on medicine for survival because a pharmacist legally and ethically may not diagnose or prescribe medications but may only dispense those prescribed by licensed physicians. The pharmacist's work province and professional role has for years been in a continuing state of definition and redefinition. A more clinical and a more professional role is currently evolving at the same time as the pharmacist's work has increasingly become a skilled occupational role.

Five basic categories of practice within the field of pharmacy include: community pharmacy, hospital pharmacy, consultancy and research within the pharmaceutical industry, practice for the federal or state government including the inspection of drugs and enforcement of laws, and teaching in colleges of pharmacy.

According to the National Association of Boards of Pharmacy (11), of each ten licensed pharmacists, nine are engaged in the general practice of pharmacy in communities. More than 53,000 retail outlets in the country provide professional services in the prescription laboratory. Mixtures of drugs are prepared in suitable form or manufactured drugs are packaged and labeled. Also, health accessories such as bandages are sold. The inherent combination of professional with business activities involved in community pharmacy makes this profession different from many others in the health field.

Hospital and other institutional pharmacies represent the fastest increasing practice option today. 1975 figures show 17% of all practising pharmacists in those settings including pharmacists in over 5,300 hospital pharmacies.

Approximately 1,500 pharmacists are employed by large manufacturers in laboratories or offices. Another several thousand are employed as traveling representatives of drug manufacturers or other concerns engaged in making or distributing drugs or related products. These are called medical service representatives or detail men, and they work primarily with physicians and other pharmacists.

Several hundred pharmacists are employed by the federal government and by state governments. Hundreds serve in the Veteran's Administration or in the United States Health Service. In each state, a few serve in drug inspection or aid in enforcement of state pharmacy laws. Finally, approximately 1,250 teach in colleges of pharmacy.

As of 1973 these numbers were distributed as follows:

- 82% of pharmacists practice in community drugstores of which 34% own their own pharmacy;
- 10% practice in hospital and institutional settings;
- 4% are employed by the drug manufacturing industry in quality control, research, or drug information programs;
- 4% are employed by educational institutions or by governments.

Pharmacy is the second largest of the professions in this study--only medicine has more practitioners, schools, and students (see Table 1 for 1970 comparative data on practitioners in the health professions included in this study). In 1972, there were 130,750 active pharmacists in the United States or approximately 63 per 100,000 people. This has been a constant ratio since 1963. Geographically, Hawaii has the fewest pharmacists with 28/100,000 people, and Pennsylvania the most with 90/100,000. Only eight states have fewer pharmacists than 50/100,000 people.

TABLE 1
NUMBER AND PERCENT OF ACTIVE PRACTITIONERS IN MODVOPPP HEALTH PROFESSIONS BY SEX:
December 31, 1970

	MEDICINE	OSTEOPATHIC MEDICINE	DENTISTRY	VETERINARY MEDICINE	OPTOMETRY	PODIATRY	PHARMACY	PUBLIC HEALTH
Total	311,210	12,000	102,220	25,920	18,440	7,100	129,290	N/A
Men	289,736	11,148	98,950	24,600	18,050	6,800	117,620	N/A
Women	21,474	852	3,270	1,320	390	300	11,670	N/A
% Men	93.1	92.9[a]	96.8	94.9	97.9	96.0	91.0	N/A
% Women	6.9	7.1[a]	3.2	5.1	2.1	4.0	9.0	N/A

SOURCE: *The Supply of Health Manpower, 1970 Profiles and Projections to 1990, Division of Manpower Intelligence, Bureau of Health Resources Development, Health Resources Administration, Public Health Service, Department of Health, Education and Welfare, 1974.*

[a] *Percentages estimated from subtracting DOs from MDs with MDs by sex in Women in Health Careers: Status of Women in Health Careers in the United States and Other Selected Countries, Chart Book for International Conference on Women in Health, The American Public Health Association, 1975.*

Pharmacy has the largest percentage of women practitioners of the professions included in this study (with the possible exception of public health for which practitioner data are not available). As of 1971, there were 11,072 female pharmacists practicing--approximately 9% of the total active practitioners. Of these women, 67% were community pharmacists, 25.9% were hospital pharmacists, 5.5% were both hospital and community pharmacists, and 1.6% were involved in other areas of the pharmaceutical field. (8:610)

There are 73 accredited schools pf pharmacy in the United States. Fifty-four are public and 19 are private. In 1972-73, there was a total student enrollment of 23,656 and an unexplained enrollment decrese in 1973-74 to 20,830. (1) Of the 73 schools of pharmacy, only three are freestanding. Others are part of universities or health science centers. The schools are fairly evenly distributed geographically with 15 in the Northeast, 23 in the North Central (or Midwest) section of the country, 21 in the South, and 13 in the West.

II. HISTORY OF PHARMACY IN THE UNITED STATES INCLUDING THE HISTORY OF WOMEN IN THE PROFESSION

CHRONOLOGY

Early pharmacy was practiced in the United States in the home by women and by local political governors, the church, and sometimes educators (tutors). It was hard to lure professionals of any kind to the early colonies, and the raw materials available for medicinal purposes were different from varieties found in Britain. Most of the herbs and home remedies were learned from the native Americans or were adaptations of techniques and drugs used in Britain. The first records of these non-professional, non-business pharmacists include stories of governors serving as colony pharmacists and relying on use of British books and what they could learn and write down of Indian methods. In addition, colony records show that Jane Hawkins was banished from the Massachusetts Bay Colony in 1628 for "trafficking" in her remedies. Although women did and could administer and dispense within their households and communities, they were not permitted to sell their services.

The first community pharmacy was founded in Boston in 1721 and served as a practical school for pharmacy apprentices as well. Thirty-three years later the first hospital pharmacy was founded by an early advocate for the separation of the duties of a pharmacist and those of a physician. These moves toward formal training and toward removing the practice of pharmacy from the home served to prevent women from taking part in the developing profession.

During the Revolutionary War and immediately thereafter, the importance of developing domestic supplies of chemicals and drugs was realized, and many of the early importers undertook to manufacture such medicinal agents as could be made from domestic raw materials. Prior to the Civil War many wholesale druggists combined importation, manufacturing, and wholesaling. More recently, the wholesale drug industry has emerged as a single enterprise.

The history of formal education for pharmacists in this country dates from about 1820 with progress most pronounced since 1900. In the beginning the instruction offered was given at night for only part of each year and was

considered merely a supplement to the training offered by the apprenticeship. Service as an apprentice was required for admission to the lectures and had to be continued as the chief occupation of the student. When chemistry or botany was taught, it was as it applied to pharmacy rather than as a basic science. Therefore the lectures were entirely professional.

The earliest special training for hospital pharmacy was an apprenticeship service in the pharmacy of a hospital. During the 19th century, the sole pharmaceutical service rendered was by people who had only this training and lacked any formal educational background in pharmacy.

In 1852, the American Pharmaceutical Association was founded, the first professional association of pharmacists. The founding convention recommended nine points of direction for the profession including the following:

- investigation of the subjects of secret medicines and "quackery";
- strengthening of federal laws and enactment of state laws to curb traffic in inferior and adulterated drugs;
- curbing of indiscriminate sales;
- separation of pharmacy from the practice of medicine; discouragement of physicians from operating pharmacies. (This was considered necessary to prevent a complete takeover of the pharmacist's role by the physician.)

All of the nine points were centered on protecting and defining the limits of the profession and keeping control over its practice. The use and sale of herbs and chemical mixtures by women in their homes was considered quackery because women did not serve apprenticeships, so the intent of the association to strengthen controls and investigate quackery also resulted in eliminating much of the work women were doing in the field.

The early 1800s saw the establishment of the first college of pharmacy and of the first professional journal. Pharmaceutical research and the development and refinement of the science of pharmacy was carried on during this period primarily in retail pharmacies. As this effort began to demand more space, the first small manufacturing plants began.

In 1821 the College of Pharmacy (both a school and a professional association) was founded in Philadelphia to address the major problems facing the profession:

- low state and lack of standards for the general level of dispensing--"the most ignorant man could compete with a scrupulous apothecary"--(pricecutting);
- the need to respond to the threat to small apprentice shop training programs in pharmacies when the University of Pennsylvania adopted a Masters of Pharmacy degree to be conferred on students they felt qualified.

The average age of the 68 pharmacists who founded the association was 28. Membership was open to those who had been "regularly" educated or graduated from their college.

Women began to appear in the profession again in the last half of the 1880s. The following chronology marks this development:

- 1863 First woman, Mary Corinna Putnam Jacoby, graduated from NY College of Pharmacy
- 1882 First woman admitted to membership in the APhA
- 1886 The Kentucky Board of Pharmacy was forced by the courts to reverse their refusal of examination to a woman
- 1887 Resolution in APhA to extend membership and cordially invite women into ranks
- 1893 Congress of women pharmacists held in Chicago leading to formation of the Women's Pharmacist Association
- 1895 First woman elected to APhA office (3rd Vice-President)

The nature of the work in the mid and late 1880s and the early 1900s for the pharmacist employee included long hours in the pharmacy (100 hours a week was considered a good job) and much physical exertion including cleaning and carrying boxes. From small one-man owned and operated pharmacies in the early 1880s much larger centers developed, usually owned by one pharmacist with a staff of employee pharmacists and pharmacy apprentices to handle much of the mixing of chemicals. During this era pharmacistsbegan to organize. A strike over long

hours and difficult conditions in 1905 led to the formation of a Drug Clerks Association. In the 1930s, when over 60% of the nation's pharmacists were unemployed, a new organizing drive resulted in the establishment of a Pharmacists' Union.

As the drug manufacturing industry developed, it became possible again for a single person or a few partners to own and operate a pharmacy, and the pattern again became small isolated business ventures. Hard as it was for women to get jobs and work under the conditions of an employee, it was ever more difficult to finance setting up a business. Where women did run their own pharmacies, they were most often inherited from fathers or husbands. Only recently have women entered pharmacy in significant numbers, and it now has the highest proportion of women of all the professions in this study (possibly excepting public health). (2, 5, 6, 9)

PRACTICE PATTERNS AND THE EXPERIENCE OF WOMEN

The proportion of women in pharmacy has consistently increased over the last dozen years as Table 2 shows. Compared to all other MODVOPPP professions, pharmacy had the highest proportion of women in 1970. (See also Table 1, Chapter I.)

TABLE 2

WOMEN IN PHARMACY: 1970
(by percent)

Year	Percent
1958	6.0
1959	6.5
1960	6.8
1961	6.9
1962	7.5
1963	7.2
1964	7.3
1965	7.2
1966	7.91
1967	8.23
1968	8.17
1969	8.71
1970	9.03

Source: *W. Michael Dickson and Christopher Rodowskas Jr., "Women in Pharmacy--Projections for the Future," Journal of the American Pharmaceutical Association. Vol. NS13, No. 11, November 1973, p. 632.*

Of the 11,670 women practitioners in 1970, 11% were single, 77% were married, 4% were separated or divorced, 3% were nuns and 7% were widowed. Of the married female pharmacists, 30% were married to pharmacists and an additional 33.2% were married to other professionals. No comparative numbers for men are available. (4)

III. THE PROFESSION TODAY

CHARACTERISTICS OF THE PROFESSION

Overview

It is difficult to draw a coherent picture of pharmacy as an organized profession because the profession is not really "professionalized" at this time. Traditionally, there is and has been a split among the entrepreneurial pharmacists who see themselves as "professionals" and are banded together in the American Pharmaceutical Association (30% of practicing pharmacists), some of those pharmacists working as employees in retail or wholesale drug companies and drugstores (10%) who are organized into unions, and a large body of unassociated pharmacists (45%). The druggists' unions are mainly concerned with collective bargaining around issues of hours worked, salary rates, etc. The American Pharmaceutical Association functions purely as a professional association. Even within the "professional" associations, functions are divided into different organizations, each with its own organizational structure, goals, finances and membership. For example, the National Association of Boards of Pharmacy handles licensure, the American Foundation of Pharmaceutical Education underwrites much of the cost of education, the American Association of Colleges of Pharmacy places interns, the American Council on Pharmaceutical Education accredits schools.

The Profession and Its Social Image

Pharmacy is a highly visible profession--most people have been to a drug store and have used the services of a pharmacist. The popular image of pharmacy is thus based to a large degree on first hand experience or on TV advertisements. The image includes:

- the pharmacist as a technician;
- the pharmacist as a businessperson;
- pharmacy as a relatively simple "count and fill" job;
- pharmacy as a service;
- pharmacy as a trained occupation, not a profession;
- pharmacy as a low status profession relative to other health professions;

- pharmacy as a good marketable skill with easy geographic and professional mobility;
- the pharmacist as adviser on simple or routine health problems;
- the pharmacist as one knowledgeable about drugs;
- the pharmacist as a manager, in charge of a drug store.

This social or public image does not reflect the pharmacist's own sense of the profession. The male students with whom we talked seemed particularly concerned with what they considered pharmacy's sometimes unfavorable public image. One of the male students we interviewed spoke of this concern and the hopes for a more patient-involved, clinical role for the pharmacist as a solution:

> *I think pharmacy has such a bad reputation. When you ask a layman, 'What do you think of pharmacy?' he will always tell you, 'Well, it's someone behind a counter counting pills who doesn't really care about you, and he wants to charge a whole big fee.' Pharmacy people are saying, 'OK, we'll show you, we'll make something of it.' So what they're doing now is creating clinical pharmacy to upgrade our image. It's good. The whole concept is good. It's patient-oriented, so it's OK. However, I don't see a good future for clinical pharmacy so far. (Third year student, male)*

Whether this student's evaluation of the future of clinical pharmacy is correct or not (see Current Trends and Issues below for a further discussion of this issue), his view of what the public thinks of pharmacy seems widely shared. Though pharmacy's image stems from factors largely outside the profession's control--the structure of the pharmaceutical industry and the imperatives of retail marketing--the image will continue to be closer to a business image than a professional image unless the profession is able to not only establish the role of the clinical pharmacist in the hospital, but also to dramatically change the nature of professional practice in the retail pharmacy.

The Profession and Practice Options

Pharmacy, like medicine and some of the other MODVOPPP professions, presents an image to the public and the aspiring professional that the work of all pharmacists is similar regardless of the setting in which the work is done. But, like medicine, the nature of everyday work for the pharmacist varies widely depending on the practice option chosen. Owning a community pharmacy, for instance, is quite different as a way of work and life from being a pharmacist in a drug manufacturing firm.

A pharmacist with a regular license has a choice of seven general types of practice. The first is to work as an employee in a small, locally owned and operated community pharmacy. Generally this allows a lot of opportunity for client contact and work in many phases of mixing, dispensing, and advising. An employee usually works with the owner (often a pharmacist) who controls the work, salary and hours. Little direct responsibility for the running of the business is required, but professional responsibility and general commitment to the owner is expected.

The second practice option is to own a community pharmacy. Managing a business is a primary component of this style of practice, and it requires a high level of time, commitment, and responsibility for running a business. An owner usually supervises a staff which often includes an employee pharmacist and salesclerk(s).

A practice option chosen with increasing frequency is work as an employee or employee/manager in a large retail chain drug store. The work is similar to that of an employee's in a small community pharmacy, but the pharmacist works in less isolation and less involvement is required in running the business.

A fourth practice option is to work as a pharmacist in an institutional setting, a nursing home, hospital, or clinic. This allows for more direct contact with the health professions world. Less direct involvement in management is required than of an owner or employee in a small community pharmacy.

A fifth option, and quite different again, is the option to work in a manufacturing and wholesale pharmacy. Working as an employee for drug companies either doing research or as sales and detail people involves selling products and acting as liaisons to pharmacies. There are some special interest jobs within this category, such as cosmetic pharmaceutics.

The sixth practice option is to teach in schools of pharmacy or continuing education programs, and a seventh choice is to serve as a practitioner or administrator in the public health field.

Women fall disproportionately into positions of employee in both community and institutional pharmacies largely because they are able to control their hours,

work part time, and more easily take time off. Another important factor is the difficulty women have and perceive that they might have setting up and running a business.

> *I like the idea of being independent and working for myself, but I don't think I'll set up or own my own drug store. Loans are hard to get for women, and I don't know anything about running a business. If I had a partner I might consider it. (Fourth year student, female)*

CURRENT TRENDS AND ISSUES

Developing and maintaining the pharmacy's image as a profession has been a continuous battle in the history of pharmacy in this country. In the past century especially, with the rise of pharmaceutical manufacturers to do compounding and labeling and the tightened control physicians exercise over prescribing, the profession of pharmacy has been split between those practitioners involved in the "professional" and "non-professional" aspects of practice.

The majority of drugs prescribed today were unknown twenty-five years ago. In addition, the marketing of most new drugs in prefabricated dosage forms has resulted in a pronounced change in prescription practice by reducing the number of prescription orders calling for technical manipulation on the part of the pharmacist. These two factors have meant that the body of new knowledge required to do compounding is relatively unknown to the practicing pharmacist and remains in the hands of the manufacturers along with the actual technical responsibility for compounding. This necessitated a new role definition for the pharmacists' work and resulted in a branch of pharmacists who see themselves basically as technicians or as a vehicle through which a drug is obtained rather than as a professional service provider. These are primarily the pharmacists who are employees in large drug retail chains and who have been involved in the move for unionization to protect their jobs and province. They are criticized by others within pharmacy who see pharmacy as a profession and feel the necessity of maintaining the service as well as the technical aspects of the field.

An accompanying change in the emphasis in training has taken place since World War II. The pre-war emphasis was on individual compounding of medications, and heavy concentration was placed on the chemistry involved in pharmaceutical compounds. During and since the War, the trend to mass production lessened the need for

pharmacists to compound, so education shifted towards an emphasis on the effects of drugs in biological systems and on training the pharmacist to act as a consultant to health care delivery teams. Some administrators we interviewed expressed concern that too many students now come to pharmacy for its non-professional aspects and because it suits an aptitude or gives economic security rather than because it provides a humanitarian service.

At the same time that pharmacy as a profession has been trying to solidify its position and redefine the limit and scope of its practice, public attention and concern has focused on the deficits and poor quality of health care. Federal and professional strategies to deal with this crisis have included increasing the output of health profession schools, redistributing practitioners, and improving the usefulness of existing personnel by training them for expanded roles. This latter strategy fits well with pharmacy's need to find new definitions of work. The pharmacist had generally been acknowledged to be an expert on drugs and drug actions. And traditionally, pharmacy curricula included a strong component of pharmaceutical chemistry and pharmacology courses with laboratory work.

The drug consultant role of the clinical pharmacist as currently conceived by the profession is increasingly patient-oriented and more directed toward working as an active member of a health team. However it also builds on the older role of the pharmacist as an expert on drugs and their effects. Clinical pharmacy as a service concept can be and is incorporated into many pharmacy roles. But clinical pharmacy as both a degree, the PharmD, and as a job definition creates a new category of pharmacist.

> Clinical pharmacy is not a new concept. It is merely a new term for the old concept of a pharmacist as a consultant on drugs. The program is simply a method for implementing the old concept--a concept that was unattainable under the old curriculum until a means was found to adequately prepare the pharmacist to meet the physician on equal professional terms, each respecting and benefiting from the other's knowledge and expertise in his professional discipline. (Catalogue, a School of Pharmacy)

The problem for this role is, of course, that it calls for acceptance by, and restructuring of the relationship between physicians and pharmacists, and it requires a joint agreement on the scope of the new role.

> This role can be performed only by a limited number of pharmacists under specified conditions which include: 1) the existence of a prearranged code of understanding with the physician, 2) a set of protocols of treatment prepared by or approved by the medical staff, and 3) special training in primary care. A primary care role is seen as a clinical role for pharmacist, implementation of which will be dependent upon the needs of a health delivery system, particularly as it relates to the availability of physician manpower and patient acceptance.
>
> These last three roles--drug therapy consultant, provider of maintenance care, and provider of primary care--have one feature in common; namely, a clinical or patient orientation. Since the baccalaureate program has neither the scope nor the time for this degree of clinical emphasis, the doctor of pharmacy curriculum must be regarded as the minimal educational experience required for these clinical roles. (3:12)

Programs in clinical pharmacy have been set up, the training begun. The problem of acceptance by the medical profession is now the major barrier. School administrators express a desire to train their most "acceptable" and brilliant students and send them into the hospitals to "break the ice." "Being an equal" to the physician means that social criteria and personality characteristics are important to the profession in selecting clinical pharmacists. The fact that a kind of aggressiveness is required of the clinical pharmacist to prove the role, to do the best possible job, and to be accepted, suggests that these traits may become obstacles for some women entering clinical pharmacy to the extent that women are not perceived to possess these traits and/or to the degree that the majority of women entering pharmacy do not display them. As a result, a combination of factors could converge to make the clinical pharmacist mostly a male role in the profession--factors including:

- a reluctance by the profession to chose women for this important role;
- the necessity for aggressiveness;
- the importance of being equals and peers of MDs in order to succeed in this role;
- a longer training period for clinical pharmacy;
- a higher training cost;
- the necessity for a total time commitment.

To the extent that pharmacy is currently viewed by many women as a desirable profession because, among other things, the cost and duration of the training is acceptable, such women might also have a tendency to self-select out of the clinical pharmacy program. To minimize the chances of this becoming predominantly a male role in pharmacy, the profession and the schools shall have to mount a vigorous campaign to encourage and attract women to it.

Current enrollments in PharmD programs show women as approximately 32% of the total 1800 students which is proportionate for their total representation among all students. (1) Thus at present it appears that the schools, women students, or both are taking the necessary steps to assume that women are an active part of clinical pharmacy.

IV. PROFESSIONAL EDUCATION

CURRENT TRENDS AND ISSUES

Pharmacy education has reflected and responded to the profession's continually changing role in two ways: through the development of a doctorate training program for the new role of clinical pharmacist, and through a change in curriculum emphasis in the bachelor's program to include more patient care concerns. Specifically, this latter emphasis has meant the inclusion of more behavioral science courses, an early clinical exposure in the five-year curriculum, and some sociology courses on the health care system. Schools differ in their response to these needs and the importance they grant to the new patient emphasis, but all schools are affected to some degree by this trend. The adoption and development of the PharmD is less widespread, and there is much debate about whether the training will actually result in breaking the ground for the clinical pharmacy role and in sufficient jobs to warrant the money being spent in curriculum development.

THE PROFESSIONAL TRAINING SEQUENCE

Overview

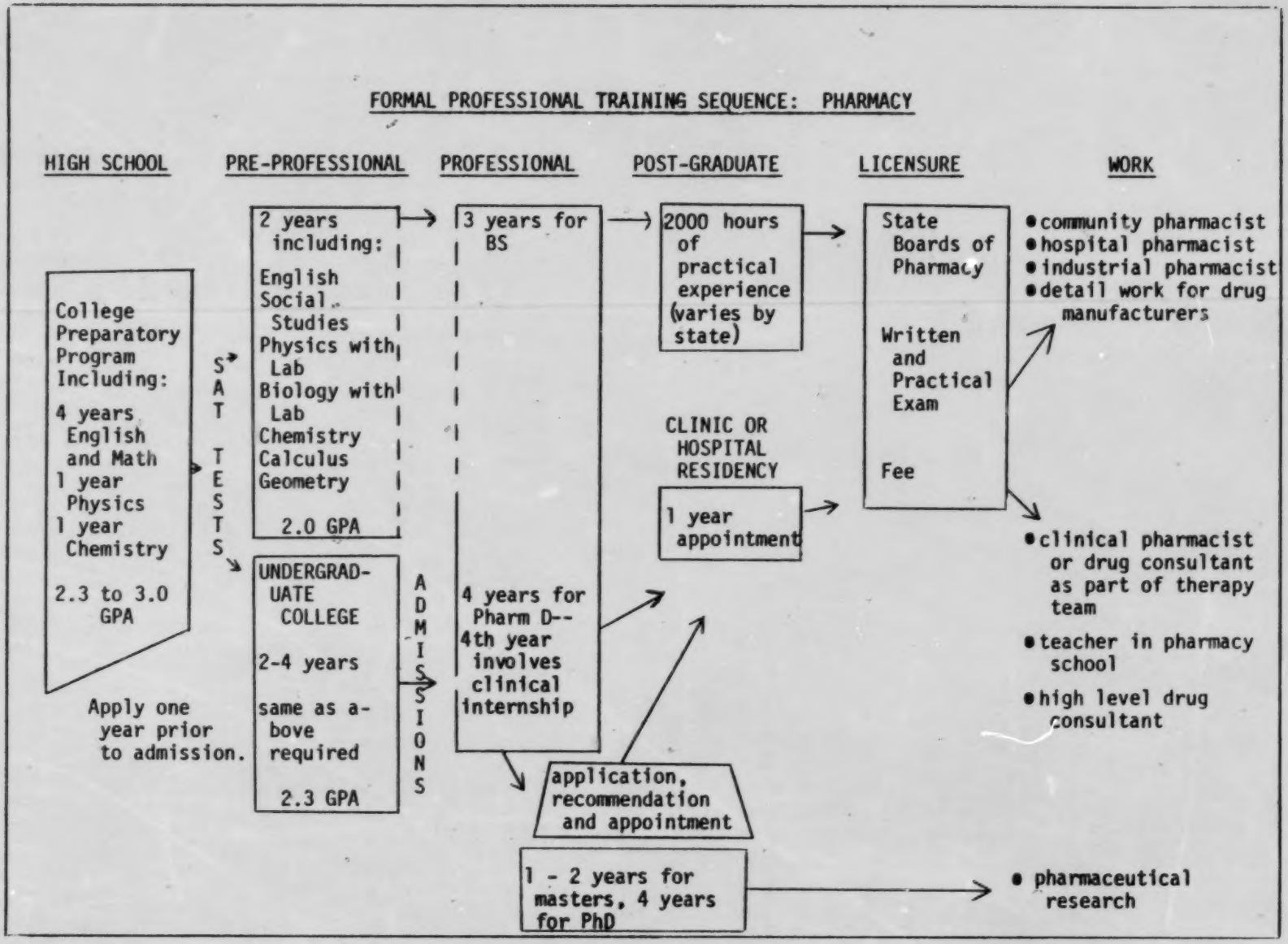
The profession offers two levels of professional training and a variety of routes into the programs. All but three of the 73 colleges of pharmacy offer a bachelor's degree (BS or BPharmacy) as the first professional degree. This degree is sufficient for licensure. Three schools offer only a PharmD degree. Over half of the schools offer a master's, a PhD, or both in pharmaceutical sciences or other graduate studies in addition to the professional bachelor's curriculum. One-third of the schools offer a PharmD in addition to the other degree.

TABLE 3

TOTAL DEGREES CONFERRED IN 1971

Degrees Conferred	Total	Men	%	Women	%
Bachelor's Degrees (4-5 yr. programs)	4,549	3,636	80%	913	20%
Master's Degrees	194	154	80%	40	20%
Doctorate Degrees	94	93	99%	1	1%

Source: American Association of Colleges of Pharmacy Report on Degrees Conferred in Member Colleges. Bethesda, Maryland.


FORMAL PROFESSIONAL TRAINING SEQUENCE: PHARMACY
HIGH SCHOOL
PRE-PROFESSIONAL
PROFESSIONAL
POST-GRADUATE
LICENSURE
WORK
College Preparatory Program Including:
4 years English and Math
1 year Physics
1 year Chemistry
2.3 to 3.0 GPA
Apply one year prior to admission.
SAT TESTS
2 years including:
English
Social Studies
Physics with Lab
Biology with Lab
Chemistry
Calculus
Geometry
2.0 GPA
UNDERGRADUATE COLLEGE
2-4 years
same as above required
2.3 GPA
ADMISSIONS
3 years for BS
4 years for Pharm D--4th year involves clinical internship
2000 hours of practical experience (varies by state)
CLINIC OR HOSPITAL RESIDENCY
1 year appointment
application, recommendation and appointment
1 - 2 years for masters, 4 years for PhD
State Boards of Pharmacy
Written and Practical Exam
Fee
• community pharmacist
• hospital pharmacist
• industrial pharmacist
• detail work for drug manufacturers
• clinical pharmacist or drug consultant as part of therapy team
• teacher in pharmacy school
• high level drug consultant
• pharmaceutical research

Recruitment

On an informal basis the employer/employee, parent/child, or other informal network recruits for the profession. General information on pharmacy as a profession is available from the American Association of Colleges of Pharmacy (AACP), and its preparation is funded by the American Foundation for Pharmaceutical Education. Seven pharmacy associations disseminate this material:

- American Council on Pharmaceutical Education
- American Foundation for Pharmaceutical Education
- American Pharmaceutical Association
- American Society of Hospital Pharmacists
- National Association of Chain Drug Stores
- National Association of Boards of Pharmacy
- National Association of Retail Druggists.

Dissemination of written information appears to be the extent of the profession's formal recruitment efforts. Some local associations and auxiliaries take part in Career Days and other recruitment efforts, and some schools have strong minority recruitment efforts as well. But except for racial minorities, the profession basically feels no need for increasing membership. The informal network does not discriminate against women in the way it does in other professions. High school women get jobs commonly and easily in pharmacies and then are encouraged or sufficiently exposed to the profession to go to pharmacy schools.

None of the schools we visited has a recruiting effort aimed specifically at women. One school did nothing other than send out a catalog on request. Another school--a university affiliated school--publishes two pamphlets, also to respond to requests. These include the following:

- Careers in Health Sciences

  This includes one-page descriptions of each of the health fields offered at the school, requirements for admission, and program overviews. Each page has a photo illustrating the field. Common sex-typing is evident in these photos, and it is interesting to note that at this school, pharmacy is depicted as a female field.

Field	Sex in Photo
Dental Hygiene	women
Dentistry	men
Dietetics	women and men
Cytology	women
Hospital Administration	men
Medical Illustration	women and men
Medical Technology	women and men
Medicine	men
Nursing	women
PHARMACY	WOMEN
Physical Therapy	women

- Pharmacy for Minority Students

  This bilingual pamphlet (Spanish) is aimed at the Spanish-speaking, Blacks, and American Indians. Photos do include women. It is basically informational about the profession and the school.

None of the schools we visited felt that the large numbers of women now being accepted into pharmacy schools were a result of any conscious policies. It seems that a sex-blind policy of admissions simply results in whatever number of women there are, and no recruitment is seen as necessary.

A few schools--primarily those which are freestanding colleges--do active recruiting because they are dependent on tuition for support and anxious to increase the number of their students. Recruitment for these schools is done routinely, but with no special attempt to reach women. One college participates in many college night programs and career days. These programs are covered by members of the student services area and selected faculty and alumni. In addition to these programs, meetings are held with high schools in the region between a member of the guidance office and interested students. The school plans to make further counselor contact by attending the National Association of College Admissions Counselors' (NACAC) national meeting, the College Entrance Examination Board's Annual Conference, and the Association of College Registrars and Admissions Officers (ACRAO) meetings.

Because pharmacy is such a visible and well-known profession, most students choose to apply because they are attracted by some aspect of pharmacy's public image. From our individual interviews with 22 female students and eight male

students, several generalizations can be made about reasons for choosing pharmacy. For most of the women we interviewed, pharmacy was not a first choice in the sense that they considered other professions first but then settled on pharmacy as the best for them. Most applied to only one or two schools (the range was one to four), and all were accepted at all of the schools to which they applied. They all knew from an early age that they would work in their adult years, and their major decision was determining the kind of work they would do. Most of them had worked in pharmacies during summers or after school (most often not as part of a career plan but because that's where they happened to find a job). The women we interviewed generally felt there are no problems unique to women in training, and only the possible non-acceptance by employers and the public might concern them later. None of them was worried about finding a job; and most seemed to choose pharmacy largely for job security, independence and as a good way to use science and make a living. They discussed openly and directly their plans and desires to take some years off from work to raise children or work part-time with none of the sense we got in the other MODVOPPP professions that this might be a breach of informal professional rules and assumptions.

Women most commonly mentioned the following features of the profession as attractive and compelling recruiting characteristics:

- Being able to control work hours and being able to manage a family life as well as a professional life
- Helping people
- Having job security
- Having the ability to support self-independence
- Being engaged in useful, important work
- Having a professional job (good income and respect)
- Having a science interest

The men we interviewed mentioned as attractive some of the same features as women did, but in the different order and emphasis which follows:

- Security
- Well-paying job
- Respect and prestige
- Helping people

Many of the men spoke openly about pharmacy training as something to fall back on if they didn't make it in other professions, and for others, it was a second or third choice profession. For example:

> *Pharmacy is a back up; it's something to fall back on, a solid future, a good job when you get out. It is true that if you ever want to practice there's going to be a job for you. (Second year student, male)*

> *It's not my life vocation to be a pharmacist. Right now I'm just cruising through school because I don't want to work; I'm doing good and why not. When something comes up, if I decide I like being a pharmacist, I'll stay; if I like some other field I'll go into that. It's a good basis if you don't know what you want to do or if you know you want to be somewhere in the medical profession. It's a good way to get an overview of the health professions but not lose any time. It isn't as if you've lost out. Like if you go to liberal arts school and think you want to go somewhere in medicine, and you went to take a few of the wrong courses, it's time wasted. But here you always have something that's going to be related back to what you eventually want to do. I can't see what we've got to lose. (Third year student, male)*

> *If you go to pharmacy school first, you graduate and then you decide to go to med school; if in the first year, second, third, whatever, you realize you don't want to do that, then you can fall back on the pharmacy. (Third year student, male)*

> *Right now it means to get a basic education in the field of health professions. It has not been my life's dream to work in a corner drug store to count pills for old ladies. If my education here starts to develop into that I am sure to go somewhere else and try some other profession. (First year student, male)*

Only one woman we spoke to saw pharmacy school as a pathway to another profession--she was interested in graduate work in chemistry. However, two of the three schools visited offered plans to obtain a secondary teaching credential in science while working toward a pharmacy degree, and a great number of the women proportionately opt to get their credential as a back-up to pharmacy.

In our field work, we gave each student we interviewed individually a short form to complete asking "Why pharmacy? What does it mean to you?" Women's responses generally included: job security and good pay; a useful, helping profession; pharmacists are respected; pharmacy is a way to be independent; and pharmacy is a way to make use of science interest and aptitude. Examples of these responses follow:

Job Security and Good Pay:

I don't want to be in a position where if anything ever happens to him [her fiance] that I am out in the cold. It's my own personal security type of thing, is what it is. I will be financially secure. I will have my own profession. This profession you can just about always be employed in, and so I won't have to worry about being unemployed for the most part. I've worked at a lot of different things, so even if I work in a pharmacy I've learned something else. And it's just the security is there, which is important for me. Some people don't need that kind of security. (Second year student, female)

Being a pharmacist means that I will have a professional job, with a good income, which I like doing. (Second year student, female)

Being a professional. Having a job to fall back on even when I'm bringing up a family. Having a job that will enable me to meet and help people in my community. (Fourth year student, female)

I chose pharmacy as a profession because the job opportunities are greater than my first choices in a career which were teaching and psychology. I enjoy working with people and there also appears to be a great need for more people in the field of medicine. (Third year student, female)

A Useful, Helpful Profession:

As a pharmacist, I'm going to use my drug and scientific knowledge with professional judgment to improve the health care system in the U.S. so it will benefit the patient to the utmost. In the end, this means as a pharmacist I want to be a health professional which aids in the care of the sick. This is a very strong desire that I have. (First year student, female)

The best way I can answer this is by saying why I came to pharmacy school. Since I seemed to be destined for a college education, it seemed more practical to me to pick a profession as opposed to a general liberal arts curriculum, which I had two years of. I wanted something that not only I could use, but which would also make me feel useful. Pharmacy appealed to me because it was a little bit different, a challenge, and more suited to my needs than med school. (Second year student, female)

Being directly involved with patient care and treatment; not only by simply following orders of doctors, but by actively participating in their care. By consulting...being able to answer questions and solving problems concerning health care. (Third year student, female)

To me being a pharmacist means being part of a health care profession--being able to care for people in their time of need. Pharmacy to me means getting out into the community and saying, 'Hey, I'm here waiting for you to ask for help. Because I care.' In my lifetime I have always worked or have always been in and around drugstores. (Second year student, female)

By becoming a pharmacist I feel I will be taking an active role helping people in a beneficial way. Through dispensing medications, I feel that I will be doing some good to those who are in need of help. Along with dispensing I hope to help people in any way as far as information about various drugs. (Third year student, female)

The pharmacist is a professional person educated and well versed with drugs and their actions. Personally, I will hopefully be in the community pharmacy field where I see my role as not only filling prescriptions but also a source of information for the general public as well as other professional people. (Second year student, female)

A pharmacist is more than just standing behind a counter filling prescriptions. A pharmacist denotes patient contact, caring, and a need to help people. (First year student, female)

To be self-supporting. To have an education and a skill, not like a BS in chemistry and go to work for a department store. Being in medicine without making the decisions of who lives and who dies. Going to work and helping people and talking to people..to make sure a patient understands how to take his/her medication so that it will be most effective and how it might affect them, e.g., this might make you sleepy. To be a pharmacist is to be able to do something, to make a living helping people. It's a clean job, not sweaty or like working with carbon paper. (Second year student, female)

Respect:

I enjoy the personal contact with people and the respect a pharmacist receives. When a person comes in with a personal problem and is willing to talk it over with you, you know they trust you!! What a great feeling. People feel better, more accepting and accepted by pharmacists than other health professionals. (Third year student, female)

To be considered, quote, as capable a person to come to as a doctor and to be, quote, respected as a person of the health care profession. (Second year student, female)

The women we interviewed all reported they received a double message about the profession when they advised family, friends, and others of their interest in it. Once it was accepted by counselors, family, and friends that they were science-oriented and wanted a career, they were told that pharmacy is "a good profession for a women". Their educational channeling at that point was into pharmacy and away from the generally regarded lower status women's health professions such as nursing but also away from the generally regarded higher status male health professions such as medicine.

Some of the women spoke of the importance of parental encouragement. The role of parents has been key in all our professions for women in a way that is not true for the male students.

> *I didn't see myself in high school as getting married. You know, I just didn't see that for myself growing as I did. I wanted to do something more than just raise kids. I'm not saying this to be cliquey or anything. I didn't want to do that. I'd seen people do that and to me it was really boring. To go on to be a housewife and everything like that. Well, my mom had done the same thing, you know, she had gone on to be a housewife and she's a fantastic mother and everything but I could see her, I could see a very intelligent woman just being in that role and that would be it. I didn't want to do that. I wanted more than that. My parents always prodded me to do something, you know. Do something more than that, you know. Go on and do better for yourself so that you don't have to struggle like we have to. My parents always said, go on and do whatever you want to do, but whatever you do, make sure that you're good at whatever you do. We don't care what you do as long as you do good. That's one thing they've always emphasized. If you're not happy, don't do it. They really emphasized that. (Second year student, female)*

Others noted the absence of any institutional provisions to counsel women to consider the male-dominated health professions.

> *There was very little high school guidance to go into a health-related field at all. Mainly the emphasis for girls was to get out of high school. No other provisions were made. (Second year student, female)*

> *In high school I wanted to go into science, not specifically pharmacy, but some branch of science. My counselor was very down on it. Also the aptitude tests I was given at this time and in junior college were extremely sex-biased as far as what kind of work you were supposed to do. (Fourth year student, female)*

> *Personally, in regard to advice from counselors, parents, peers, and other pharmacists, I was never really totally discouraged, i.e., 'it's too rough, it's a man's world, etc., etc.,' but more so, still cautiously, encouraged. Like I'm warned that school is very rigorous, job positions might be tight in a few years from now, competition would be with 70-80% males, etc. But I was very fortunate to have that support to follow my goal. (Second year student, female)*

Others noted the importance of strong encouragements from practitioners in the field or from peers.

I guess I decided the end of my freshman year in college. I was interested in pharmacy, I was interested in laboratory technology, I was interested in something that I could think with...something I could work with, a drug, or a disease, or something, and I could treat a patient and could see results. And that's what I was interested in. And I maintained my interest in chemistry and so pharmacy looked like a really great career. I had a good friend who was a pharmacist, and he really pushed me very strongly. He was a very old-time pharmacist, in fact he was in a federal position, a very influential man in pharmacy; and besides, my mother was a secretary for someone who was working with Medi-Cal, a pharmacy graduate too, and she encouraged me. (Second year student, female)

The real problem for me was the decision to choose a male-oriented health profession at all. I have found that both my family and close friends were encouraging after I decided. Meeting new friends and telling them about my future career, I've encountered some static but mostly about the profession of pharmacy itself. There are some male chauvanists around but if I were to say they are wrong to think and say what they do, I would be discriminating. (Third year student, female)

All of the women we interviewed except one described pharmacy as an attractive profession because it allows a woman to have a family and a professional career simultaneously. In addition to that almost universally attractive feature, others were also mentioned:

I was after the professional status of pharmacy. I didn't think I was smart enough for medicine. But there was a lot of illness in my family and I had a lot of contact with pharmacies and pharmacists. I was attracted by the importance of the profession, and the contact with the people. I really care about people, and love to talk to them. (Third year student, female)

I enjoy working with people, and pharmacy will allow me to have a family. (Third year student, female)

I knew I could get a good part-time job that would let me have a family. I also like to interact with people. (Second year student, female)

I talked to a few counselors and people like that and I decided pharmacy was really good--number one, because I really was interested in sciences, and medical sciences, and I wasn't sure about medicine. It's a really big challenge. And I liked the direct aspect of it, you know, working with people and with drugs and with science, and I thought it was a pretty good program. I also thought that as far as for me, if and when I decide to get married it will be a good thing, that I can work part-time at it. I decided that full-time didn't fit into my schedule, so I only applied here. It is the only school I applied to because it was the only school I could afford. (Fourth year student, female)

For many of the women, the choice of pharmacy was made in conjunction with a rejection of another profession:

I wanted to go into teaching, but there were no jobs, so I decided on pharmacy. (Fifth year student, female)

I wasn't smart enough to go into medicine. (Third year student, female)

I knew I wanted to go to college, and I thought about medicine or nursing but decided on pharmacy because it seemed cheaper and more suitable. (Second year student, female)

I was interested in any of the health professions, and pharmacy seemed the easiest and cheapest. (Fourth year student, female)

I wasn't sure I wanted to devote my whole life to medicine, whereas I thought, well, pharmacy would give me my, like, professional life. Pharmacy would also leave me time for myself, my outside interests and everything like that, because what I've seen of medicine is that it is a complete devotion. (Third year student, female)

One of the things I had decided was that I didn't want to be a teacher, or that I didn't want to teach secondary school. Didn't want to get my degree in math and teach math, because teacher jobs are short, and I just didn't want to have trouble getting a job, and so I had been looking through some career things and I noticed that all of the courses I wanted to take the next year, except for two, would fit the requirements for pharmacy school, so I added those two that were requirements for pharmacy. I picked pharmacy because I figure when I got out I would have a job that I could work at for awhile or even part-time and earn high wages, and then I could decide what I wanted to do if I hadn't decided by then. And I would have money to do it. But my parents are older and I just couldn't.... and they were more than happy to contribute to my education plans while they were working, and so I had to finish school while they were working. Pharmacy is a relatively short training. Everybody says pharmacy is a good part-time job for women, or you can go back to pharmacy after you take off awhile. Whether you can go back to clinical pharmacy is a completely different story. But I also took the MCAT test and applied to medical school. I hadn't really decided whether I wanted to go into medicine. But I wanted to satisfy myself that I was as equally qualified as everybody else. Then I wouldn't feel so bad...to have taken the MCATs and have low scores would have been to say, 'Oh well, I'm only a pharmacist because I'm too dumb for medicine.' And so that's why I went ahead and applied. To have somebody else evaluate where I was and how good I was. (Resident in clinical pharmacy, female)

I first thought of pharmacy when I was a senior in high school because I was doing a research project of my own and I was interested in the effects of drugs on rats, and I studied that for like three years when I was in high school, so it got me interested in medicine. It was amphetamines, diet pills, but it really instilled in me that drugs do weird things to you, and I was really interested

in chemistry and in health and some aspect of it and I didn't want to go into medicine because I knew it would be just too much of a--too involved for me. Because I'm the kind of person that when I get into something I get into it really intensely, and I put my whole self into it. When I do that too much I just go crazy. I've even been doing that lately. I knew I'd get into that in medicine, that I'd really get into treating the patients and that I wouldn't have a chance to do anything else in life besides just doing a career. (Resident in clinical pharmacy, female)

In group interviews with male students, we heard different responses and emphases to the question, "What does pharmacy mean to you?" Many men wrote responses on cards rather than talking about their reactions, so some of the following appear as lists while others are in narrative form.

To me, being a pharmacist means security. The field is wide and the need is great. I enjoy many of the innovations being tried in pharmacy today such as the clinical pharmacist in the hospital going from bed to bed checking possible drug reactions of which a pharmacist is an expert in where a doctor may not be. It will mean prestige and self-respect to me. I hope that someday doctors will have more respect for the pharmacist's decisions on drug-related matters and mode of prescribing. With the way the field is improving now, I see the doctor and pharmacist consulting side by side in the near future. (Second year student, male)

I like the feeling of helping society in the sense that I am a major component in their lives as far as health is concerned. (First year student, male)

I like the idea that I am my own boss for I am interested in the retail aspect of pharmacy. (Second year student, male)

I felt there is a good job field in pharmacy. I don't want to get stuck in an unemployment line when I get out of college. Even if I don't make it I do want something out of the education. Not just to go here and be without a job. You can always get a job in a chain. They need pharmacists--it's unbelievable. (Second year student, male)

A pharmaceutical member of the health profession who can deal directly with people and act as a mediator between the physician and a patient. A well paying job, which gives you more time to put into the profession, instead of having to worry about financial burdens. Respect and responsibility are also important, because your patient is putting his health in your hands. (Third year student, male)

To me being a pharmacist is one of the most important jobs or professions I could have gone into. The fact or reason I chose this profession was that it was the best way I could help my community and do it in a way that I would hopefully enjoy. So far, this has been the case, and all the hard work I've done or am doing has been worth it, and I have never regretted one minute my deciding on this field. (First year student, male)

When I get out of school after five years I will be in retail pharmacy because I enjoy to be in direct contact with people. I have a place to go--my father's drugstore. I plan on making this drugstore more professional and to let the customers know that a pharmacist is not just a man who dispenses pills. A pharmacist now has far more education than a pharmacist who graduated 20 years ago. He is more educated in the field of medicine than almost any doctor. (Second year student, male)

Opportunity to help other people in health care without the pressure of other related fields. Drugs will be more and more increasingly important in the future, and I want to be a part of this growth in a professional way. Provides a fairly steady source of income. (Fourth year student, male)

Generally the issues of job security and helping people are shared by male and female students. Men add their own concerns about good pay and working as an equal to an MD.

The male students express much more concern about the profession's status. Women think of pharmacy as a prestigious place to be--and are often encouraged to go into it as a good, suitable, respectable profession for a woman. Most of the men we interviewed--except those whose fathers were pharmacists--expressed a sense of a kind of stigma or of failure that they "couldn't make it into" or "didn't choose" medicine, dentistry, or law. Even those whose first professional choice was pharmacy talked a lot about their concerns that the profession does not appear to have the status some other professions do in the public's eye.

I just want to see a time where a doctor and a pharmacist can talk over things and not have the regimented I want this, this, and this, and hang up the phone. What even gets me worse than that is when you take out a prescription and the doctor doesn't even call in, you get his nurse. You're getting third-hand information. Sometimes you even get the receptionist who gets it from the nurse. After awhile you get this chain of command where you're at the bottom of the totem pole.

You walk into a doctor's office, and the doctor is sitting on one side of the desk and you're on the other side. It's very rigid, like you're going into a police station or something. Usually when you go to a doctor you get dressed up. The doctor has his soft music playing and that sets everybody off. It's supposed to calm you down. I have to sit there and talk with him, or being examined, everything is very regimented. Yes, sir, no sir. You walk into a druggist's on the other hand, and it's usually informal. You usually know the pharmacist; if he's a good pharmacist and his practice isn't too big, he usually knows everybody by name. Everywhere I've worked now, the boss has always known the customers by name. Usually you walk in like after church, or stopping out for a pack of cigarettes,

you start shooting the breeze with the pharmacist, and things start coming out, like, gosh, I have an awful headache, or things like this. The pharmacist can start...he can, through a conversation, start pointing things out which the patient would never even think of telling the doctor. Then, I'm hoping it will come to the day when the doctor will finally ask the pharmacist what he thinks about a certain person. 'Say, what do you know. Have you noticed he's like this? Have you noticed any other symptoms, like I think he's very nervous.' But that'll be the day, when the high and mighty doctor asks a lowly pharmacist's advice! (Fourth year student, male)

Most people just think a pharmacist sits in the back room and counts pills and only has to know to count up to 300. But we know more about drug interactions and drugs than anybody--only no one bothers to ask us! (Second year student, male)

Many students held jobs in pharmacies in high school during summers or after school and noted the significance of this work experience in introducing them to the profession of pharmacy. Of our respondents many more women than men followed this route to the profession.

Application and Admissions

There is no centralized application system in pharmacy and the application process varies greatly by school. Schools develop their own system for handling and screening applications. These appear to range from schools with strict cut-off Grade Point Average (GPA) qualifications, strict deadlines, and direct informational applications, to schools with flexible rolling acceptance systems. In a few schools some applicants can appear the week before classes and gain entrance without any formal application, but they usually need a sponsor. Exceptions are made to both prerequisite courses and GPA requirements.

Requirements for admissions vary but all schools require certain basic formal requirements including a high school diploma with a GPA ranging from 2.3 to 3.0 and the minimum following high school subjects:

- Four years of English
- Four years of math
- One year of physics
- One year of chemistry with lab

For entrance in the third year, or the first professional year, an applicant must have filled the preceding requirements plus:

- algebra and trigonometry plus advanced math
- physics--one year of high school with lab or one semester of college with lab
- general chemistry
- biological sciences with lab
- six to eight semesters of communication arts which may include English, drama, foreign languages
- six to eight semesters of behavioral science

The profession has a fairly new central Pharmacy College Admissions Test, developed and administered by the Psychological Testing Corporation. So far few schools seem to require or even encourage applicants to take the test and use instead the Scholastic Aptitude Test (SAT) administered by the Educational Testing Service. The SATs are taken routinely by most high school students intending to go on to college, and they test verbal ability, reading comprehension, and quantitative ability. The profession administers no direct tests of its own.

There are two flexible places in the formal admissions process. One is the interview which is required at most schools and recommended at all. The other is the flexibility in the process at most schools for people to gain entrance with a sponsor but without formal application at any given point prior to classes' beginning. The schools see their task as producing good pharmacists. When pressed, however, it becomes clear that some of the criteria and descriptions required of a good pharmacist do not fall within the purview of the pharmacy school curriculum. Rather, the schools attempt to select students with those characteristics and use the training time to teach the direct skills and knowledge and, when necessary, weed out those with problems not caught in the admissions. The task of the interview in all schools is to select students who:

- communicate well (speak English well, are articulate and pleasant)
- have good motivations such as helping people and an interest in science--compared to wanting to advance on to medical school or to make money

Comments from members of the admissions committees we interviewed which illustrate their point of view about the interview process were revealing:

> *I use the interviews to try to find out how well they speak English. I'm personally trying to reason out just really how dedicated they are to science and if they really like math. I think some of them are using it as a real escape and some use it as a back-up. I think some of them are not interested that vitally. Some of them are trying to get out of where they are and try this instead of everything else. I don't think escape is a very good word, but many of them are using this as a back-up for other areas...nursing or veterinary medicine, medicine. We can tell by the cancellation. Last year we had a real... a really phenomenal cancellation rate. (Admissions officer, female)*

Women applicants, on the other hand, are often seen as more desirable applicants than men, because pharmacy is often a first choice for a woman instead of the fallback position many suggest it is for men:

> *We get pretty sharp women applicants. We're just thrilled and delighted we get girls at all. I think it's a great field for women. Most of them are really good students, I'll guarantee that. It's an exception when they are not good students. And by that I mean really strong academically. They have really thought about pharmacy seriously. I just question how many of these guys that we get in are really dedicated. There are plenty of them that are dedicated, but we're talking about how to choose only 200 to accept out of 400 who are applying, plus our own university pre-pharmacy students. I don't think in very many instances the women think about medicine or dentistry or nursing instead. (Director of Admissions, female)*

She added how important it is to like science and feel a dedication to the specific field of pharmacy and said these are the criteria she uses in choosing students.

A fourth year female student and member of an admissions committee had much to say about desirable characteristics sought in applicants during admissions interviews:

> *Communication skills are really important because you have to be on the floor, in the community, and anybody you talk to, and you have to at least not be afraid to talk. Potential is really hard. That's kind of a subjective thing. It's really important in that a lot of students when they come here are a little bit immature, and you have to kind of say, well, I think this person has potential and we should let them in because they can develop...I think maturity is another one. Somebody who is mature enough to handle the stresses here, and who, you know, knows where he is as a person so he can go on, you know, like you wouldn't have to follow his development. One*

thing I think is really important is...being interested in people, because his whole life is going to be concerned with people...people as patients on the outside, being a community pharmacist or in a clinic or hospital. You have to like working with people...you know, being able to do an interview, working with your peers and with the other medical personnel.

The emphasis on clinical pharmacy means that we are looking for a different kind of student than previously because a lot of the students who go into pharmacy go into it because there's a lot of money in it, and the job really isn't that hard, working behind a counter. A lot of them want to own their own store, and so a lot of the older pharmacists don't even like the new clinical pharmacy program because they think, well, you're stepping into a doctor's territory or a clinical pharmacologist's territory, which is an MD in pharmacology. So, you've got to look for students who are willing to change, to be flexible enough themselves to change with the changing profession, because right now it is changing so much, and we're not interested in only just going out and making money. Even if you have a community store you can have education for the public, and programs available to where you're not just sitting back and making money, you know, selling cosmetics, etc. So I think you are looking for different students. You can have a really good student who is very smart, but you know, he will just sit back and be very quiet and won't go out and do things...won't be part of the community action. You know, sit around and study all the time. I think being rounded is much more important than somebody who is going to make straight As in school.

We spent considerable effort in our field research attempting to determine what our respondents considered desirable characteristics for a pharmacist. The following traits were mentioned as important in a pharmacy student and ultimately in a practicing pharmacist:

- good moral character (important for ethical management of a pharmacy and specifically in regard to access to and use of drugs)
- ability to communicate
- motivation
- interest in the sciences and science aptitude
- sense of responsibility
- empathy
- neat appearance (to inspire the client's faith)

The following comments on what makes a good pharmacist cover both traits looked for in applicants and also what the schools hope a student will be upon graduation:

> *A pharmacist must have a basic knowledge of the profession, an ability to communicate with MDs and clients, be able to empathize, and is motivated and is ethical--for example, will also stock the best quality. (Dean of Curriculum, male)*

> *A man has got to be motivated, he's got to have the basics; and a man needs a good moral background and interest in the sciences. (Dean of Administration, male)*

> *...a good pharmacist has to read a lot to keep current. (Preclinical faculty, female)*

> *...a good pharmacist has the ability to respond to questions, to empathize, has a good knowledge of the field--what to look for and where to get answers--and learns to keep patient profile charts. (Chief Administrator, male)*

At one pharmacy school fifteen points are thought necessary to be a good pharmacist, and they are formalized in an evaluation format used in all classes. These include:

- eagerness to seek new knowledge
- motivation towards professional practice
- ability to identify problems
- ability to organize and present information
- ability to solve problems
- quality of data presented
- effectiveness of oral expression
- student-physician communication
- student-patient communication
- ability to relate to other students
- ability to relate to instructor
- sense of responsibility for patients' drug therapy
- accurate and current drug profiles
- attendance and punctuality
- personal appearance

A man in charge of job and intern placement at one school stressed the importance of "personality", "forcefulness", "aggressiveness" in getting a good job as a pharmacist. A person in admissions spoke of a "love of science," "dedication to the field," and "the ability to speak English well so you can communicate." A student handbook in explaining the school rules regarding class attendance mentioned some of the qualities the school feels are involved in being and becoming a good pharmacist: [emphasis added]

> Among the prime requisites for productive membership in the pharmacy profession is being able to accept responsibility and self-discipline. We accept it as a principle that everyone is thus imbued to some extent, but experience dictates that the pharmacist must make more than just a feint in developing those qualities. Constant, regular class attendance is compatible with the development of adult responsibility and self-discipline.

In addition to these comments, it is clear that a pharmacist is also supposed to be "knowledgeable about drugs and their effects," "community oriented," so that s/he can go out into the community and spread information about drugs and drug abuse, "have a good sympathetic and trained ear" so that when a pharmacist meets the client over the counter s/he can give advice, "be friendly" to get and keep clients coming back, "be assertive" so that s/he can handle a staff, and "be professional" (used in the context of explaining to a female intern why she must wear a dress and not slacks under her coat).

Clinical practice requires an additional set of characteristics as well. Because it is a new role, and a central part of its success will be the ability of clinical pharmacists to act as and be seen as equals to MDs, the profession is recruiting the best academic students and people who are decisive and quick thinking and can prove to the medical profession that pharmacy has much to offer.

As there are many schools of pharmacy, and the competition for places is relatively low, the primary factors for both men and women in deciding to which schools to apply seem to be which degrees are offered, area of the country (most students stay fairly close to home), and which schools they are told about by employer, father, or friend. Only for those students with a specific interest in clinical pharmacy does the emphasis or design of the program seem to be a major consideration.

There is an informal grapevine regarding relative status of the schools, but information applicants received this way did not seem to be used at all. The pharmacy students we interviewed applied to only a few schools--the average number was two, with most students applying to just one, and a few applying to many.

Procedures for acceptance differ greatly by school. Many schools accept on a rolling basis and require a non-refundable tuition deposit to hold an applicant's place. One school accepts every "qualified" applicant. The three schools we visited accepted women and men from the applicant pools in the percentage shown in Table 4.

TABLE 4

PERCENT OF APPLICANT POOL ACCEPTED BY SEX 1975-76
(by percent)

	Women	Men	Both
School #1	30%	25%	27%
School #2	29%	21%	23%
School #3	42%	54%	49%
TOTAL	35%	35%	35%

Source: URSA field data collected and compiled from school supplied statistics.

Even given the higher percentage of women applicants accepted in two of the schools and the total equal percentage of men and women applicants accepted, accepted women appear better qualified than males when measured by Grade Point Average and Scholastic Aptitude Test scores as shown in Table 5.

TABLE 5

COMBINED SCHOOLS' AVERAGE GRADE POINT AND
SCHOLASTIC APTITUDE TEST SCORE BY SEX
(by percent)

		Women	Men
GPA		3.24	3.09
SATs:	Verbal	459	433
	Math	513	501

Source: URSA field data collected and compiled from school supplied statistics.

Competition for places seems much higher than is generally assumed or believed of pharmacy, although data on the number of schools applied to or applications withdrawn would modify the 35% accepted applicant figure somewhat.

Curriculum

Nationally program emphases in pharmacy education differ considerably. Free-standing schools devote most of their resources to the first professional degree (bachelor's), with remaining resources going to continuing education public service. Affiliated schools usually have substantial graduate and research programs which may use as much as 80% of the schools' financial and teaching resources, a good proportion of which is generated by research grants. Freestanding pharmacy schools may include undergraduate preprofessional curricula as well as professional degree programs.

A bachelor's degree in pharmacy includes five or six postsecondary years of education. This includes liberal arts, basic sciences, pharmaceutical sciences, and pharmacy administration plus clinical experience. For licensure, three of the five years must be in a school of pharmacy. The first two years are principally devoted to liberal arts and can be taken in any college. The last three are devoted to the required pharmacy courses and pharmacy related electives. The undergraduate program includes five areas of instruction. They are pharmacy practice, pharmacy administration, pharmaceutical chemistry, pharmacognosy (study of the general biology and biochemistry of natural source drugs) and pharmacology (therapeutic use and effects of drugs). Although for a century the profession moved in the direction of more classroom and academic training, recently there has been an increase in the complexity and amount of clinical training involved. In addition, there are limited positions for postgraduate clinical training available in hospital based residencies.

As the role of the pharmacist expands to include more direct patient care, schools are increasingly including the behavioral sciences and an early clinical exposure in the curriculum. These are not yet required for accreditation, and the schools we visited exhibited a range of responses to these needs. However, aside from the degrees granted, differences among the schools' curricula seem to be a moot issue both in terms of the image of the profession and in the eyes of prospective school applicants.

The PharmD is a four- or five-year professional program, strongly clinical in emphasis, and leading to direct patient care and consultation. The professional program is begun after a minimum of two years of undergraduate college education.

The more clinical courses involved in a curriculum, the higher the cost of training because of the necessarily higher faculty/student ratio. Thus the programs and roles that are heavily clinical have become a branch of the profession requiring longer training and higher costs.

The first two years of a five-year curriculum involve a regular liberal arts curriculum with a science emphasis, and little if any attention is paid to the student as future pharmacist. The courses are taught by academicians, not pharmacists, and the only professional socialization students experience in these years is a social adjustment to college life.

Courses are primarily lecture and/or laboratory classes where students are either in a large group or in small working groups. Difficult situations sometimes occur for women in these settings--situations which occur in all of the MODVOPPP professions:

- Women fear speaking out or asking questions in lecture classes because of extra pressure about making mistakes;
- Lectures include nudie slides and jokes at the expense of women;
- Individual women are singled out as representatives of all women;
- Male students in laboratory work groups do not allow the women to do anything;
- Practical jokes on women have annoying sexual connotations or direct sexual meaning.

The incidence in pharmacy of these kinds of problems seems less but not markedly so than in other professions. But the women we interviewed did not report these incidents as problems. They did, however, report general feelings of having to prove their intelligence and dedication, of being less welcome. The impact of these incidents on women's learning experiences is strongly detrimental. The fear of making a mistake while being watched closely often prevents women from

taking risks, from trying things they aren't sure of, from asking questions that might be considered obvious, and from demanding a chance in lab work groups to do the work themselves.

Generally these problems fall into our classic categories of women feeling less welcome in the profession than their male peers and of having to work harder to prove themselves as competent and committed professionals. All women students feel pressure from their faculty, their advisors, and their male peers, but many of the women said they felt no discrimination from faculty and advisors. Some women spoke of extra help or attention given them by faculty--help that is appreciated in one sense but has negative aspects, too. The assumption behind the help is often that "women need help because they are less competent" and the male students deeply resent the extra attention their female colleagues receive.

> *I've gotten special attention and help in science classes of pre-pharmacy because I was a woman. It's nice for me but not fair to guys, and then they really come down on me. (Second year student, female)*

Women commented frequently on the lack of institutional supports and the seemingly differential support given to males:

> *Everybody has doubts about whether I want to be here, you know, what am I doing in college, and what not; and once I was having trouble with chemistry and botany, and I went up and talked to my advisor, and said that I would like to drop out; he just said, "okay", didn't try to help me or encourage me at all. (Third year student, female)*

> *I know a couple of girls who have had bad experiences with advisors. They are very willing to say to the girl, "Well, maybe you have chosen the wrong profession, and maybe you should re-evaluate your feelings, and decide upon another career." Whereas if it's a guy that has gone to him saying, you know, "I'm flunking chemistry," the advisor would say,"Well, can I get you a tutor or something?" (Second year student, female)*

> *Oh you know, they will bend over backwards for the guy, but it will be ten times before they'll even think once about helping the girl. They are just more willing to get rid of the girl. (Fourth year student, female)*

Comments about discrimination women experienced from male students were more plentiful and seemed, in group interviews, to get a lot of supportive responses and general agreement from other women in the group.

I ran into no problems nor discouraging remarks when I expressed my interest in pharmacy. Perhaps I was speaking with liberal-minded people. However, I do find that some male students now that we're in do not fully accept us as equal. We have to stay out of their way, work harder and make fewer mistakes. (Third year student, female)

I never had that problem until I got here, where the work is a bit harder. But I still think there is a certain personality of guy who just doesn't accept females. I mean, it's like it's ingrained in them, they can't help it. They tend to be especially noticeable in lab, and I'm still having that problem. The TA tries to keep the guys and girls mixed in the groups, because he knows it will happen. Guys group off, and the women group off. And, he wants us to work together. But you really have problems, because the guys just tend to take over. (Fourth year student, female)

Okay, well no, I just think, that no matter what profession you might be in, a woman has to prove herself, to be more capable than the average man. (Fourth year student, female)

Women often discuss their feelings that they must try harder and prove themselves. Apparently this feeling is often a response to the real interpersonal environment they experience as defined by their male peers' attitudes toward them.

Well, I feel that I have to get the A, whereas the three guys around me can get a C. I must get an A. Because the only reason the three C guys are going to listen to me is that I do get an A. If I get a C, I'm not equal to them, I'm below them. I'm still a dumb chick. Okay, I hate the phraseology, but that's part of life. (Second year student, female)

Practical Experience

Up to 2000 hours of practical experience is required for licensure, and schools vary in the responsibility they take for helping a student get this experience. Some schools build work and clinical experience into their curriculum; others assist students in summer job placements; still others do not in any way deal with placements. Because placements are almost all in community pharmacies, the practicing pharmacist determines which students to hire. In many areas, placements are passed from one student to another on the basis of fraternity affiliation, and the network completely by-passes women. Some schools allow and encourage students to work part time during the school year; others leave it up to the students to fulfill the requirement on their own; still others have

externships and internships built into the curriculum. The problem of getting these placements is felt differently by women depending on which of the above systems their school uses. In all our interviews, by far the biggest subject for women was the problem of what happens when "you get out there in the world." Rumors about other women's experiences in getting placed and staying placed in externships, in internships, and in jobs are passed around and known by all the women. Generally these can be broken down into problems with employers in getting jobs, problems with employers on the job, and problems with clients. These obstacles are barriers while in school in obtaining the necessary experience for licensure and also in finding work afterwards. Whereas high school summer clerk jobs for women seem plentiful in the pharmacies, professional work does not.

The fraternity system seems most prevalent in the choice jobs in areas near a pharmacy school.

> *There are many male fraternities in pharmacy. Many times a female may lose the position because she is not affiliated with the employer's fraternity as a competing male would be. The salary of a job is usually less if you're not a married male supporting the family. (Third year student, female)*

> *They choose you for a job by the way you look, and not for your professional ability. Or else you're chosen by your fraternity. There are some pharmacies in town that pass the best jobs down to the fraternity brothers. And they won't let the girls in to get jobs. (Fourth year student, female)*

> *Finding an internship without prior experience in a pharmacy is more difficult for women. One pharmacist flatly said, 'I would rather hire a guy.' Outside of the lack of experience is the extreme favoritism toward specific fraternities. Various pharmacies are unofficially 'KY only' or 'Phi Delta only' or wife, sister or girlfriend of a fraternity member. Once out on the field, some women I know have been laid off or have had their hours cut recently, although their pharmacist-husband has not been laid off or had his hours cut. In a certain course here, the male faculty member has let the class know that he prefers males in the profession and verbally insulted females (in general) in class. It all adds up--we aren't really wanted. (Fifth year student, female)*

By and large, the obstacles women face in getting jobs are the prejudiced attitudes of the hiring practitioner.

> *I have felt no discrimination by students or faculty. However, I am reasonably sure that once I start my internship I may feel that I need to perform better on all levels than the average male in order to distinguish myself as capable in the eyes of my preceptor and the public. The only pharmacy I have approached regarding work, I learned the owner 'would not hire a girl pharmacist.' I hope this is not indicative of the general attitude but rather would hope that I will be judged on the basis of ability and not sex. I've heard that it's hard for a girl to get a job, though. (Third year student, female)*

> *Upon applying for an internship position I was competing for the position with a male. Since it was through a school program, I was told by the director of the internship program, also a male, that I had lost the position because the pharmacist, being older, needed 'someone' able to lift and carry boxes, which I felt I was capable of doing, but it was clear they felt only a man could do it. (Fifth year student, female)*

> *There's still discrimination against women in the professional field; some people think that women can't do the job as well as men can. For example, in applying for a job as a pharmacist, if two people apply for the job, one is a male and the other is a female, usually they will employ a male pharmacist instead of a female. I think this is the biggest problem that we encounter very often. (Chair of Internship Placement, male)*

> *Some men don't want to hire women. Other men have told me that it's an ideal profession for women. No one has ever hired me in a pharmacy so I could see if I liked it--I was always 'too young' or they had all the summer help they needed. The potential of earning more money than our husbands can cause problems if a guy's ego is hurt or if he thinks he's been a failure. A lot of men don't want wives working. (Fourth year student, female)*

> *I went into one pharmacy (I had a friend who was working there) and I said, 'Talk to your owner about internships.' She went back and talked to him. He said, 'Well, she's a pretty good looker,' and so she said, 'Well, do you want to hire her to be an intern?' And he said, 'Are you kidding? I wouldn't hire a female pharmacist.' (Fifth year student, female)*

Rumors, reports, and anecdotes about experiences on the job once a woman is placed were numerous.

> *I've worked in a drug store for five years but the pharmacist has treated me like a child. He is very sexist and uptight about women taking over the world. He patronizes me and treats me like an idiot. Also here in school women are treated like children in certain ways. (Fifth year student, female)*

Some of the toughest times I had in my internship were the nurses who worked up on the floors, like they were the ones that didn't really accept me. (Fifth year student, female)

Men come in and ask the women pharmacist a question, and I know men won't believe her. I used to get really upset. One woman had a nervous breakdown. And I'm not sure if it was because of all the problems she had around the store or not, but I really felt very bad. It's hard on someone to get all this training and still everyone doubts you. (Fifth year student, female)

Problems Encountered in Training

Aside from problems in pharmacies, in getting jobs, with male peers, the attitudes of male faculty--particularly those with specific power over placements and residencies--are most upsetting to women students. For example:

It used to bother me a lot, that we never had any women and they never talk about women, always men. It's always 'he'. Nobody will ever change that. There are a lot of women in my class, but it doesn't make it any different. We still get all sorts of jokes. One professor (my advisor) starts every lecture with a joke about women and he handles job placement! (Third year student, female)

A fourth-year female, married to one of the pharmacy residents, reports some faculty who kid her husband by calling him her last name and teasing him about having a strong wife. Her advisor, the man responsible for granting residencies at the school, said to her at a party, "You don't really want a residency; we know who the clinical pharmacist in your family is; why don't you just go and have babies."

Female students report social isolation and tension in their relationships with male peers--tensions growing out of the differing expectations men have for women and for professional colleagues.

The men think you are strange because you think more of your schooling than of getting married. They also can't understand why you would devote so much time to school work when you could be out socializing with a boyfriend more of the time. But they take <u>their</u> schoolwork real seriously! (Third year student, female)

One guy I knew used to say to me, 'What's wrong with you; why don't you want to get involved with such and such a person,' and he meant, 'Why do you have to be so involved with your schoolwork? What's the big thrill?' and I knew he also meant, 'Is there something wrong with you sexually?' (Fourth year student, female)

Most of the guys in our school go out with girls other than the girls in pharmacy school. I don't care how nicely dressed or feminine we are or how nice a person we are, they tend towards the non-professional women for social things. (Second year student, female)

Some guys just don't like the idea that a woman can have a profession and possibly make more money than them. So they avoid us outside of classes. (Third year student, female)

The girls in our class are smart enough, but they don't really take pharmacy seriously. Sometimes I honestly believe they are here to get a husband by the way they act. (Second year student, male)

You have to work real hard in pharmacy school and there isn't much time for social life. It's hard to meet girls outside of pharmacy school--we only see people in our class, so you kind of have to just say 'good-bye dating' for a few years. I mean you wouldn't want to date the girls in our class. (Third year student, male)

These tensions appear less in the schools that offer just a professional curriculum and in those with the higher degree programs.

V. PHARMACY STUDENTS

WHO THE STUDENTS ARE

Because the professional pharmacy curriculum begins earlier than training in the other MODVOPPP professions, the student population is younger. The median age nationally for first year pharmacy students is 18, and 83% of those admitted into the third year are between 20 and 24 years of age. The ages of the students we interviewed match this data. (11)

Out of the total of 30 students we interviewed individually, four males and one female were married. Nationally, 20% of male pharmacy students are married and 5% of the female students are married.

Although a very high proportion of pharmacy students are white (91%), pharmacy has the highest proportion of minority students (9.3%) among all MODFOPPP professions. (10)

About 17% of students in schools of pharmacy came from families with incomes below $5,000 in 1970, the largest proportion of under $5,000 family income levels in the study (see Table 6).

TABLE 6

TOTAL ENROLLMENTS IN SELECTED MODVOPPP HEALTH PROFESSIONS SCHOOLS IN THE UNITED STATES BY FAMILY INCOME: ACADEMIC YEAR 1970-71

(By Percent)

FAMILY INCOME (by Percent)	MEDICINE	OSTEOPATHIC MEDICINE	DENTISTRY	VETERINARY MEDICINE	OPTOMETRY	PODIATRY	PHARMACY	PUBLIC HEALTH
Less than $5,000	6.8%	12.4	7.3	11.7	9.8	11.3	16.9	N/A
$5,000 - $9,999	20.1%	25.2	22.0	27.9	26.0	24.8	31.6	N/A
$10,000 - $14,999	24.9%	27.9	29.8	29.6	28.8	27.7	28.7	N/A
$15,000 - $19,999	14.8%	13.5	15.7	13.7	13.7	15.3	12.7	N/A
$20,000 - $24,999	11.5%	7.2	11.0	7.7	9.6	10.1	5.3	N/A
$25,000 or more	21.8%	13.9	14.3	9.5	12.2	10.8	4.7	N/A
TOTAL	100%	100	100	100	100	100	100	
Under $15,000	51.8	65.5	59.1	69.2	64.6	63.8	77.2	N/A
Over $15,000	48.1	34.6	41.0	30.9	35.5	36.2	22.7	N/A
Rank by Highest Income	*1*	*5*	*2*	*6*	*4*	*3*	*7*	*N/A*

SOURCE: *Minorities and Women in the Health Fields, Bureau of Health Resources Development, Health Resources Administration, Public Health Services, Department of Health, Education & Welfare, 1974.*

Of all the MODVOPPP professions, fathers of pharmacy students are represented proportionally higher among people who have a high school degree or less as their highest educational level (see Table 7).

TABLE 7

DISTRIBUTION OF MODVOPPP HEALTH PROFESSIONS STUDENTS BY FATHER'S EDUCATIONAL LEVEL: 1970 (By Percent)

Approximate % Educational Level	MEDICINE	OSTEOPATHIC MEDICINE	DENTISTRY	VETERINARY MEDICINE	OPTOMETRY	PODIATRY	PHARMACY	PUBLIC HEALTH	*UNITED STATES*
Graduate or Professional	35%	25	22	17	22	21	11	N/A	*5*
College Graduate	4%	12	15	14	10	7	8	N/A	*7*
Some College	14%	12	16	15	15	17	15	N/A	*10*
High School Degree or Less	37%	50	47	55	52	55	65	N/A	*78*
TOTAL	100%	100	100	100	100	100	100		*100*
More than College Degree	39%	37	37	31	32	28	19	N/A	*12*
Rank by College Degree or More	*1*	*2/3*	*2/3*	*5*	*4*	*6*	*7*	*N/A*	*N/A*

SOURCE: *How Health Professions Students Finance Their Education, Department of Health, Education and Welfare, publication number (Health Resources Administration) 74-13, page 7. Educational level is approximate because numbers were estimated from bar graphs in the source.*

A higher proportion of pharmacy students' fathers work as craftsmen than do fathers of any other group of MODVOPPP health professional students and than fathers of the total of U.S. employed males. Of all the MODVOPPP professions, pharmacy students have the highest proportion of unskilled workers as fathers. As Table 8 (page 49) shows:

- 7% of the fathers of pharmacy students are pharmacists
- 3% are other MODVOPPP health professionals
- 31% are other professional and technical workers or owners and managers
- 15% are in clerical or sales work
- 24% are skilled workers and craftsmen
- 11% are unskilled workers
- 8% are farmers

National data are not available on the work of mothers of pharmacy students, but we found a marked difference in our data between male and female students. All but one of the female students interviewed had a mother working outside the home, whereas all but one of the male students interviewed reported that their mothers worked in the home.

As Table 9 (page 50) illustrates, next to public health, pharmacy has more women students than the other MODVOPPP professions, with a total of 27.7% in 1973. This figure is the result of a steady increase since 1950, when the percentage was 9.4. Many comments were made by admissions officers, deans, and faculty members that the number of men has been decreasing, but no data are available. Some schools have as high as 52% women enrolled.

TABLE 8

DISTRIBUTION OF MODVOPPP HEALTH PROFESSIONS STUDENTS BY FATHER'S OCCUPATION
UNITED STATES: 1970 (By Percent)

Father's Occupation *(By Percent)*	MEDICINE	OSTEOPATHIC MEDICINE	DENTISTRY	VETERINARY MEDICINE	OPTOMETRY	PODIATRY	PHARMACY	PUBLIC HEALTH	*ALL U.S. EMPLOYED MALES*
1) Profession of Student	15%	11	7	4	9	7	7	N/A	--
2) Other MODVOPPP Profession Health Worker	6%	5	7	4	7	9	3	N/A	--
3) Other Professional, Technical, Owner, Manager	48%	42	47	39	42	43	31	N/A	*28*
4) Clerical & Sales	12%	13	13	11	14	15	15	N/A	*13*
5) Craftsman, Skilled Worker	10%	16	16	15	16	16	24	N/A	*21*
6) Unskilled Worker	5%	8	6	6	7	7	11	N/A	*26*
7) Farmer, Farm Worker	3%	4	3	21	4	2	8	N/A	*5*
8) Other Occupations	1%	1	1	--	1	1	1	N/A	*6*
TOTAL	100%	100	100	100	100	100	100		*100*
Total in Health (1 & 2)	21%	16	14	8	16	16	10	N/A	--
Total Health Professionals, Managerial... (1,2,3)	69%	58	61	47	58	59	41	N/A	*28*
Rank by Professional Occupations	*1*	*4/5*	*2*	*6*	*4/5*	*3*	*7*	*N/A*	--

SOURCE: How Health Professions Student Finance Their Education, Department of Health, Education & Welfare publication number (Health Resources Administration) 74-31. October 1973, page 6.

TABLE 9

FIRST YEAR FEMALE ENROLLMENTS IN MODVOPPP HEALTH PROFESSIONS SCHOOLS AS AVAILABLE FOR ACADEMIC YEARS 1968-69 THROUGH 1974-75

(by percent)

PERCENT WOMEN FIRST YEAR ENROLLMENT	MEDICINE	OSTEOPATHIC MEDICINE	DENTISTRY	VETERINARY MEDICINE	OPTOMETRY[a]	PODIATRY[b]	PHARMACY	PUBLIC HEALTH
1968-69	.0%	4.0	0.9	9.0	-	-	20.1	N/A
1969-70	9.1%	2.4	1.3	10.9	2.5	-	22.7	N/A
1970-71	11.1%	2.7	2.1	10.1	3.7	2.5	23.7	N/A
1971-72	13.7%	4.3	3.1	15.3	5.3	2.0	25.8	N/A
1972-73	16.8%	6.9[c]	4.2	18.0	7.9	2.3	27.7	N/A
1973-74	19.7%	9.0	7.2	22.8[d]	11.3	4.0	29.0[e]	N/A
1974-75	22.2%[f]	10.9[f]	11.2[f]	24.4[d]	-	4.8	-	47.0[g]

SOURCE: *Minorities and Women in the Health Fields, Bureau of Health Resources Development, Health Resources Administration, Public Health Service and Department of Health, Education and Welfare, 1974 except:*

[a] *Unpublished statistical tables from the American Optometric Association, St. Louis, Missouri.*

[b] *Unpublished data from the American Association of Colleges of Podiatric Medicine, Washington, D.C.*

[c] *Journal of the American Osteopathic Association, Education Annual, 1974.*

[d] *Unpublished data from the American Veterinary Medical Association Association, Chicago, Illinois.*

[e] *American Journal of Pharmaceutical Education, "Report on Enrollment in Schools and Colleges of Pharmacy, First Semester, Term or Quarter, 1973-74", 1974.*

[f] *Women in Health Careers: Status of Women in Health Careers in the United States and Other Selected Countries, Chart Book for International Conference on Women in Health, The American Public Health Association, 1975.*

[g] *Association of Schools of Public Health; estimate since some unknown; excludes Puerto Rico*

The average cost of pharmacy training is $3,550/year. It is the least expensive of all of the MODVOPPP health professions. The range is $1,600 to $5,750 per year. At the end of their schooling only 58% of the seniors report debts at an average of $3,261 (as compared with 84% for seniors in osteopathic medicine, reporting an average debt of $9,796). Many students work in pharmacies while in school or during summers, and they finance their training through a combination of parental support, earnings, scholarships, and small loans.

Pharmacy students are not eligible for the armed forces health professions scholarship and loan programs. The American Foundation for Pharmaceutical Education, funded largely by drug manufacturing companies, underwrites both the costs of the schools and handles a fellowship program.

BELIEFS AND EXPECTATIONS OF MALE/FEMALE STUDENTS

A distinction must be made between expectations and attitudes held by faculty, counselors, and others toward men and women students in the bachelor's program and those in the doctorate program. A bachelor's in pharmacy is considered a good, respectable profession for a woman. Counselors, families, and friends were often reported to view pharmacy as a status position for women and as a professional end in itself. For men, however, pharmacy was often discussed as something to fall back on or as a stepping stone to another health profession. Women that pursue a bachelor's program in pharmacy are not discouraged and sometimes receive limited support.

> *I think it's probably the best job for a girl, really. Pharmacy's easy, you can make some money, it doesn't require much. (Second year student, male)*

> *I would think if I was a woman that it would be great, because you can work part-time in a pharmacy, and, say you decided to have children, they can take a year or two off and work part-time, raise a family at the same time while earning a good salary. (Third year student, male)*

> *It's like a nurse, in a way. You can be a nurse and be a wife at the same time. It doesn't conflict with anything. (Fourth year student, male)*

The Recruiting and Admissions Officer at one school believes she is encouraging women in pharmacy, but her attitude and approach may have the result of tracking women into limited areas in the profession.

> *It's just a question of getting out there and talking with counselors. It's surprising how little counselors know about pharmacy. I tell them this is a good career opportunity for a young lady. And I use things like career opportunities especially for the young ladies and ask things like 'Have you ever considered a pharmaceutical education as a means of getting into the cosmetic industry?' No one specifically trains a cosmetic scientist. The closest thing to it is pharmacy. And another good place for women is working in a community pharmacy.*
>
> *Another thing about having a woman in pharmacy is they tend to have an obvious knack for setting things up nice. Just even simple things like that. They have a knack for it. (Faculty, male)*
>
> *I think it's an ideal profession for women. It's a profession where they can maintain their contact even during their career as mothers and housewives. And, while they are raising their families, they can work one or two days as a real pharmacist and thus keep in touch with all the developments in pharmacy. (Faculty, male)*

In a study of women pharmacists published in the Journal of the American Pharmaceutical Association, women were asked if and why they feel pharmacy is a good job for women. Table 10 (page 53) shows the results.

An Administrator's comments on pharmacy's suitability for women are illustrative of a widely held view:

> *Pharmacy is a great profession for girls. It's interesting, you get good pay, but you don't have to take too much responsibility. A woman can work for someone else, arrange part time hours if she wants, and never has to worry about the business aspect of the profession. (Administrator, male)*

Negative beliefs about women further narrow where and how they can fit into the profession. The assumption that women are more vulnerable to robbery was mentioned several times at each of the schools we visited.

> *You can't leave a woman in a pharmacy alone. It's too much of a liablility. And so for every woman pharmacist that you hire, you have to have knowledge she's an exceptional person and worth it because for every woman you hire in a pharmacy, you have to have another person with her.*

TABLE 10

REASONS WHY RESPONDENTS WOULD RECOMMEND A PHARMACY CAREER TO AN INTERESTED GIRL: 1971 (Number and Percent)

REASONS	Women Pharmacists	
	Number	Percent
Economic security--money	327	36.3
Challenging and/or rewarding work	292	32.4
Need or demand for pharmacists	229	25.4
Good part-time work available	154	17.1
Fits well with marriage and family	133	14.7
Good working conditions	115	12.7
Flexible working hours	77	8.5
Other reasons given	124	--
Total respondents	902*	

**308 women said they would recommend a pharmacy career, but did not report any reasons why. Respondents could give as many reasons as they wished and the percentages given are the percentages of women who gave that reason.*

SOURCE: Kenneth Kirk and Richard Ohvall, "Women in Pharmacy--Gratification or Discrimination," Journal of the American Pharmaceutical Association, Vol. N513, No. 11, November 1973.

The stereotype and traditional expectation of a woman's proper place in pharmacy is thus as a part-time or potentially part-time employee working day shifts in a minimally responsible position in a large enough community or institutional pharmacy to have several employees. The proper woman pharmacist has or expects to have a family that will cause her to leave pharmacy for several years and/or work part-time for several more. These reasons are, in fact, why many of the females we interviewed had chosen their profession, but several fumed at how annoyed they were of hearing the stereotype, having it assumed of them, and being tracked into just one type of practice that is often regarded within the profession

as one of lesser status. Although this stereotype does make it more acceptable for women to enter certain tracks in the profession, it is based on negative or limiting assumptions about women's abilities which result in less professional status once in--assumptions such as:

- women have less to give to the profession
- women are less committed to a profession
- women will naturally get married and have children
- women don't want (or can't handle) business responsibility

In response to some of these assumptions, one second year female student exploded in a group session:

> *I'm sick of hearing what a good profession this is for a women. I'm not married, I don't have kids, and maybe I never will, so what am I supposed to do, accept third rate status just in case some day I'll want to fulfill what they think is my 'natural' function in life?*

VI. SUMMARY AND CONCLUSIONS: IMPLICATIONS FOR WOMEN IN PHARMACY

As the compounding technology of pharmacy is increasingly taken over by pharmaceutical manufacturers, the province of the pharmacist becomes that of a dispenser of drugs or of a patient consultant regarding drug use and interactions. The dispenser, primarily a service role, occupies a position of less status in the profession than does the consultant role. Whereas many pharmacy students and practitioners merge these two roles in the work of a community pharmacist, the profession makes a distinction in training and degrees between the clinical pharmacist and the pharmacist.

Clinical pharmacy requires more training, a more aggressive stance, and a full time and energy commitment. Women's concerns about balancing a family and a profession, the differential problems women face in financing their training and in making the time commitment to training, the conflict entailed in filling a role that requires a heavier male set of aggressive characteristics, and the discrimination women encounter in trying to fill the higher status positions in the profession all combine to create additional obstacles to women in clinical pharmacy and often results in their being tracked into roles with less time and energy commitments and less time and cost involved in training. The result is that as women continue to track into the employee dispenser role and away from the clinical pharmacist or entrepreneurial role of the community pharmacist, they receive less power, less pay, and the least status in the profession. This means that women also work in those positions in the profession which require the least commitment of time and energy and are most permissive of part-time and/or interrupted work patterns. Thus women's roles in pharmacy continue to reinforce some of the stereotypes that are used against women in training.

VII. SPECIAL RECOMMENDATIONS

Two of the major problems women face in pharmacy are getting a job and then being treated as competent professionals once on the job. The best vehicle for breaking down prejudiced job hiring practices are the professional associations. Women as respected professionals should be more visible in association conventions, journals, and meetings. The problems of job discrimination should be discussed and, ideally, a clear policy direction should be set by the associations.

The American Pharmaceutical Association (APhA) is the professional association with the widest range of influence in pharmacy. Its conventions, journals, and newsletters are important vehicles for reaching and affecting the attitides of practitioners and for alerting them to the current concern over equal treatment for women. The Student American Pharmaceutical Association (SAPhA) is probably the best vehicle for reaching students.

1. The associations should sponsor and publish frequent and periodic reviews of prevailing salaries for pharmacists in different positions with differing levels of experience in different geographic locales around the country. Men as well as women students have expressed concerns about the fact that women are often offered less money when seeking employment and that if and when they accept such offers they unintentionally may create economic problems in the profession for themselves as well as for all pharmacists. Periodic and published reviews of prevailing salaries would help assure that all young pharmacists, both men and women, had a "sense of their worth" when seeking a position. This would help women stand firm against offers of less money due to their sex and would also make it clear at a symbolic level that the profession as represented through its associations regards both men and women pharmacists as deserving of equal pay for equal work and qualifications.

2. All the associations, but particularly SAPhA, and the schools themselves should formally encourage and support forums for women to express their concerns, interests, viewpoints, problems, and potential contributions

to the profession. We have found in workshops conducted at the SAPhA annual meeting in the spring of 1975, in school visits, and in our overall research experiences that women express desire for and benefit from the opportunity to share impressions and problems in order to reduce the isolation they often feel in in a predominantly male environment. In turn, the profession benefits from support of women's forums in several ways. First, the newest members of any group or profession are often the most enthusiastic and can bring new and vital perspectives. Second, formal support from the profession for its female members is an expression that the profession accords these professionals the same respect it accords its male members, and this in turn helps bolster and support a desirable image for women and thus for all pharmacists in the larger society. Finally, pharmacy will benefit when all of its members are fully participating members of the profession.

Models for these forums might vary from small "rap" sessions, to formal women's caucases, to task-oriented committees on the status of women. The structure should differ, depending on the number of women involved and their specific needs and concerns, but we recommend that SAPhA and the other associations encourage them in principle on the local level (on each campus) as well as within the state and national associations.

3. SAPhA should encourage the use of its organizations as a vehicle for women's caucuses to bring their concerns and issues to the SAPhA membership as a whole. We have found in our experiences with male and female workshops at SAPhA as well as in group interviews in other professions that both men and women benefit from an opportunity to discuss their feelings and attitudes about the profession and to hear the opinions of their colleagues regarding the experiences of men and women. This kind of interchange between male and female students is important both to bring the attention of male students to attitudes and behaviors which affect and are often a liability to women in pharmacy training, and to provide a forum for male and female to develop and share mutually acceptable strategies for assuring that any counter-productive myths and stereotypes about women are continually identified and dispelled. For example,

in the SAPhA workshops we conducted in the spring of 1975, women discussed the negative effects of derogatory jokes or comments made by their male colleagues. It became clear in the mixed male/female workshops that often male students do not realize the extent to which these comments affect a female's sense of support from others and increase the pressure to "prove" herself. Suggestions for how women might share their concerns with membership at large could include rap sessions at annual meetings, the accessibility and openness of the executive committee to hearing issues and considering policy statements growing out of women's concerns, placing women's issues on the agenda for plenary sessions, and so on. In addition, in membership meetings and in state and local conventions, panel discussions or educational forums by women's caucases can be used to acquaint and educate members with these issues and concerns.

4. APhA should establish a permanent research committee charged with recommending research designed to learn more about the entry and practice characteristics of women in the profession of pharmacy.

Many of the prejudices against women, their capabilities, and their commitments to the profession are based on assumptions and stereotypes that may not be true and which will doubtless require research data to effectively disprove. For example, many employers are reluctant to hire women because they believe women do not practice the profession once they marry but rather drop-out to have children and never return. Whether this is true, the extent to which it is true, and the extent to which women's practice patterns compare to men's are not well-known or documented, yet crucial decisions are made on the basis of what is believed to be true. Thus, research is needed which is designed to determine women's practice patterns in the profession (how many years they practice after graduation; whether they practice full or part-time; whether they practice in community pharmacies, hospitals, or other institutions; whether and when they return to the professional workforce if they do leave it for a time). Research which examines the same issues for men using comparable data and study controls is also needed to assure that no erroneous conclusions are reached from the study data.

Additionally, all research conducted should make very explicit any assumptions the principal investigator holds which would be influential in establishing the topic of the study, its methodology, and/or its conclusions. For example, the assumption that a professional pharmacist once trained should practice the profession continuously on a full-time basis until retirement age would lead a researcher to conclude that any group which does not do so is somehow less committed to and/or less valuable to the profession as a result. However, readers who hold different values and assumptions would not necessarily come to the same conclusion as the researcher, and they should be free to interpret the study results in light of their own values and assumptions.

5. APhA should use its own newsletter(s) and encourage the use of publications of state associations and of individual schools of pharmacy as forums for identifying, researching, and dispelling counterproductive myths, prejudices, and stereotypes about women in general and about women in pharmacy in particular.

   Permitting negative myths and stereotypes about women to go unchallenged does a great disservice not only to women in the profession of pharmacy, but to the profession as a whole by leaving untouched the impression that the profession is somehow permitting "second-class" pharmacists into its ranks. In addition, official publications and newsletters should be a vehicle for the expression of special concerns and issues raised in women's caucuses and groups and for reporting new research. Use of newsletters could include regular columns for women's caucuses and groups to express issues and concerns, regular announcements of forums, presentations or special events of particular relevance to these issues, reports of new research, and editorials supportive of women in pharmacy training and in entering the leadership positions of the profession.

6. All the associations should formally advocate the appointments and candidacies of women to all offices in the associations. This would ensure the adequate representation of women in the decision and policy-making

processes in the profession; would give female as well as male pharmacists access to, contact with, and visibility in the professional network; and would allow women as well as men the experience of developing skills and competencies involved in representing the profession and taking responsibility for making some of its significant decisions.

7. Another problem that should be addressed by the schools and by associations at the local level is realistic counseling of women applicants and first and second year students to the range of practice options open in pharmacy and support and encouragement for them to go into the entrepreneurial or clinical aspects of the profession.

8. Another leverage point for reaching and affecting practitioners would be in the evaluative criteria established by schools or state boards for approving clerkships and internships. Since prejudiced attitudes of practitioners sometimes preclude job options for women and often negatively affect the quality of the learning environment for women, clerkships and internships should only be approved if they are open to both male and female students.

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APPENDIX A

The URSA field team made visits to three schools of pharmacy--one free-standing and two university affiliates, representing both the east and west coasts and encompassing a variety of curricula and programs. In addition, our field work included group interviews at the national SAPhA meeting in the spring of 1975.

INTERVIEWS CONDUCTED

Administrators	Male	Female	Total
1) Deans, Presidents, Chancellors	3	--	3
2) Assistant or Associate Deans	6	--	6
3) Affirmative Action Officers	--	--	--
4) Other Administrators	5	6	11
TOTAL	14	6	20
Faculty			
1) Pre-Clinical	4	3	7
2) Clinical	6	4	10
TOTAL	10	7	17
Students--Individual Interviews			
1) First Year	--	1	1
2) Second Year	--	5	5
3) Third Year	1	7	8
4) Fourth Year	1	2	3
5) Fifth Year	6	7	13
TOTAL	8	22	30

Group Interviews

1) Female Students	7
2) Male Students	2
3) Both	2

APPENDIX B

PHARMACY ASSOCIATIONS

American Pharmaceutical Association (APhA), founded in 1952, is the most powerful and the major professional association of pharmacists in all branches of the profession. There are about 40,000 members. APhA holds national meetings and conventions and serves as an information network through its journals, booklets, manuals, and kits on professional practice, the history of pharmacy, and public relations.

Student American Pharmaceutical Association (SAPhA), founded in 1954, is a division of APhA. Its membership is composed of students of pharmacy. There are local chapters at each school. SAPhA provides a forum for student opinion and trains for future involvement in professional associations. Most pharmacy students are involved in SAPhA.

American Society of Hospital Pharmacists (ASHP), founded in 1942, is designed to address the specific needs and concerns of hospital pharmacists. There are 14,000 members. ASHP provides a personnel placement service, holds conventions, and publishes a journal.

American Council on Pharmaceutical Education (ACPE), founded in 1932, is responsible for accrediting colleges of pharmacy and is composed of representatives from the major pharmacy associations.

American College of Apothecaries (ACA), founded in 1940, has 1,000 members. ACA is a professional society of pharmacists who own and operate "ethical" prescription pharmacies (must be a member of APhA to join).

American Foundation for Pharmaceutical Education (AFPE), founded in 1942, was established by drug manufacturers and wholesalers to uphold, improve, and influence pharmaceutical education and to support a scholarship program for students.

American Association of Colleges of Pharmacy (AACP), founded in 1900, is an organization of all accredited colleges. The AACP deals primarily with educational issues in the pharmacy school curriculum.

Women's Auxiliary of APhA, founded in 1936, is an organization for both women pharmacists and wives and widows of pharmacists. They maintain a loan fund for junior and senior female pharmacy students.

National Association of Boards of Pharmacy (NABP) was founded in 1904 to provide interstate reciprocity in pharmacy licensure based on uniform minimum standards of education and licensure. NACP also compiles statistics on the profession. Every state requires licenses to practice, and a minimum requirement for licensure includes:

- graduation from an accredited school;
- passing a written exam administered by the state board of pharmacy (there is a test developed by the National Association of Boards of Pharmacy that is used in most state boards);
- completion of a one-year internship, or an equivalent number of working hours, usually in community practice. However, many pharmacy school curricula provide clinical experience that substitutes for part of this requirement (up to the boards' discretion).

Licensing is handled by the state boards of pharmacy. Members of the board are appointed by the governor, often from a panel nominated by the state pharmacy association. Funds for the work of the board are provided by fees assessed for examination for licensure, license to practice, license to operate a pharmacy, annual renewals of license, and by fines collected. The National Association of Boards of Pharmacy sets up national guidelines for these boards, but has no direct power over their operations. Reciprocity for licensure is now available among all states but California, Florida, Hawaii, and New York.

APPENDIX C

NATIONAL PHARMACEUTICAL PUBLICATIONS

The starred and annotated journals are the most relevant to issues in the training process.

Academy/GP

The Academy Reporter

American Druggist

*American Journal of Hospital Pharmacy-monthly journal of the ASHP

*American Journal of Pharmaceutical Education-5/year journal of the AACP

American Journal of Pharmacy

Bulletin of Parenteral Drug Association

Chain Store Age for Drug Executives

Chemical Marketing Reporter

Cosmetics and Perfumery

The CTFA Cosmetic Journal

Drug and Cosmetic Industry

Drug Intelligence and Clinical Pharmacy

Drug Topics

FDA Consumer

F-D-C Reports ("The Pink Sheet")

Food & Drug Packaging

Food-Drug-Cosmetic Law Journal

FWDA News Capsule

Hospital Formulary Management

International Pharmaceutical Abstracts

*Journal of the American Pharmaceutical Association-monthly journal of APhA focusing on professional issues.

Journal of Clinical Pharmacology

Journal of Medicinal Chemistry

*Journal of Pharmaceutical Sciences-monthly academic, scientific publication of APhA

Journal of Pharmacology and Experimental Therapeutics

Lippincott's Hospital Pharmacy

Lloydia: The Journal of Natural Products

Medical Marketing & Media

NABP Newsletter

NACDS Executive Newsletter

NARD Journal

NWDA Executive Newsletter

Pharmaceutical Salesman

Pharmacy in History

Pharmacy Practice

Pharmacy Times

A Pharmacy Weekly-weekly newsletter of APhA announcements

Pharm Index

PMA Newsletter

Product Management

SAPhA News

*Voice of the Pharmacist-a weekly publication by the American College of Apothecaries for those who own and operate their own pharmacies

Washington Drug and Device Letter

Weekly Pharmacy Reports ("The Green Sheet")

APPENDIX D

SUMMARY OF STUDENT GROUP INTERVIEW ISSUES REGARDING PROFESSIONAL TRAINING

INTRODUCTION

URSA used two primary techniques for interviewing students about their professional training experiences in general and about the problems they encounter in gaining access to and pursuing professional training in particular. Each produced a different set of issues and different emphases.

URSA adapted a planning technique known as the Delbecq Nominal Group Process into a form of group interview which we used to surface from groups of students a broad spectrum of problems and issues they encounter in professional training. The groups were small--typically numbering less than twelve--and they included all female groups, mixed male/female groups, and all male groups. The group interviews gave us insights into which of the problems most group members shared, which seemed to present the greatest obstacles in professional training, and which are controversial.

URSA also conducted a series of individual one-on-one interviews with male and female students. The individual interviews often touched on problems and issues not raised in the group interviews because they might be considered "too personal", because they needed direct probes and encouragement to surface, because they were not shared by other members in the group, or because they were not directly related to the question the group was asked to address.

The list of problems included in this Appendix and the analysis which precedes it represent only those issues raised in group interviews by students in response to a single question posited them by the URSA field team. The list does not include any additional issues--and there were many--which surfaced in individual interviews.

As the study progressed, URSA used several questions in the group interviews, changing them to allow us to probe or follow new areas of concern. As most were non-productive (see VOLUME I on Methodology), this Appendix includes only responses to the question: "Given your experiences and observations, what problems does a woman encounter in becoming an X (doctor, dentist, etc.)?" for women, "Given your experiences and observations, what problems does a person encounter becoming an X?" for mixed groups, and "...what problems does a man encounter in becoming an X?" for the men.

Group members were given approximately ten minutes to write their responses to the question on a card, and the answers were recorded without discussion on easel pads so that all members of the group could see the responses. The list of problem categories included and discussed below was generated from the responses on these cards and on the easel pads. In most cases different issues were raised by men and women, but in all cases where the problem category was shared, it was discussed in different contexts, with different emphases, and in terms of a differential impact on men and women.

Generally the problems mentioned clustered into six categories: structural features of the school(s), profession(s), or sex roles; absence or inadequacy of programs, services, facilities, or equipment provided by the training institutions; problems with characteristics of the profession and its work; access to resources required to consider the profession, be admitted to school, and to participate fully in professional practice; negative attitudes and behaviors of peers, faculty, practitioners, and clients; and the impact on oneself of all of the above.

STRUCTURAL FEATURES OF THE SCHOOL(S), PROFESSION(S), OR SEX ROLES

This category includes all those structural features of the profession or school that affect women's experiences in training as well as structural consequences of societal sex roles which reflect the society's assumptions about appropriate roles for men and for women. By appropriate roles we mean those behaviors, feelings, attitudes, skills, attributes, characteristics, and motivations we usually associate with one sex to a greater extent and/or more often than with the other. Structurally, for women, this refers to the specific sets of responsibilities delegated to them by the society on the basis of their gender. Issues raised by women students in this category include:

Lack of Role Models

Basically this is an issue of how many and where women faculty appear in the schools. At some schools the problem is that there are no women faculty or clinicians at all to whom female students can look for evidence that a woman "can do it." In other schools, women appear only in what students consider the lesser status positions (e.g., Basic Science Instructors) which women students feel is a statement about a woman's proper role within the profession. At the few schools in which women clinicians appear in high level positions, some female students may reject them as unacceptable role models because the women have not managed to balance professional success in filling other feminine roles.

Lack of a Support Group of Women

Women students hope and sometimes expect that support from other women will help offset the social and professional isolation they feel in the male environment of the professional schools. The lack of such support is a severe disappointment and often aggravates the pressures of loneliness and isolation. This is a direct result of few numbers of women in a class or school and is compounded by differences in age and marital status.

Being Tracked into a Limited Range of Specialties or Practice Opportunities

This problem has two aspects. Certain specialties and practice options in each of the professions are labeled as more or less appropriate for women. To some degree these labels are consistent with commonly held stereotypes regarding women in this society. For example, the specialties involving work with children are all considered appropriate for women. Similarly, regarding practice options, those that involve supervising a staff and running a business are generally regarded inappropriate for women. For most women in making the decision regarding specialty selection or practice choice, the stereotypes and pressures to go into one rather than another

selection are important. More important, though, are those problems arising from the necessities in a woman's life of carrying responsibility for both a family and a profession. This consideration, and at times necessity, works to track women into those specialties or practice options that are most easily controlled in terms of numbers of hours worked.

Balancing Work/Family

The years of professional training coincide in our society with a woman's childbearing years. To the extent that women are primarily responsible for the home and children, the problems of time management, energy commitment and sheer logistics in being a full-time student and committed practitioner and wife/mother at the same time create a tremendous pressure and problem for women that men do not experience. This is the single most widespread, cross-professional issue of which women spoke. If the women were not already in the position of managing both wife/mother and professional (student) roles, they anticipated that they would in the future.

Women at a Disadvantage Due to Background or Physical Ability

In some professions women feel that they have a distinct disability or handicap due to their background and socialization as women or due to physical size. In dentistry, for example, a familiarity with tool use and terminology is important and often assumed by the schools. Many women spoke of the problems they encountered in picking up such skills and information that the schools assumed they had but didn't (and that many male students did, in fact, have). In other professions where physical size and strength are important, women spoke of the difficulties and inequities i trying to learn techniques that were developed for the male physique.

Social Problems: Fear of the Impossibility of Finding a Mate

Women in all the MODVOPPP professions speak of some problems with dating men who do not understand, support, or accept their choice of a male profession. In medicine women speak of the fear of never finding a male who could accept their high status, high pay, and strong professional commitment. This problem is uniquely women's because it is an accepted pattern in our society for men to marry women who have less social status and less earning power than they. For women in professions with top status and pay, the range of men for whom they make appropriate matches tends to be limited to the men within the profession who might be more successful than they.

ABSENCE OR INADEQUACY OF PROGRAMS, SERVICES, FACILITIES, EQUIPMENT AND OTHER SUPPORTS OR RESOURCES

When schools fail to provide, or provide inadequate, resources in the learning environment and training program, difficulties are caused for women. This becomes an issue when their special or equal needs are not met by the physical plant. For example, when uniforms, lab coats, surgical gowns, etc., are not available in women's sizes women have to wear things too big for them or dress in the uniforms of other health professionals (such as clerks in pharmacies, nurses in surgery). Changing rooms, lounges, women's toilets, and on-call sleeping facilities are often not as available and accessible to women as to men. Health care services or insurance often do not

cover gynecological and family planning services. Child care is not available. Escort services are not available for women working late in labs, clinics, or libraries.

CHARACTERISTICS OF THE PROFESSION AND ITS WORK

Issues in this category were only mentioned by male students. The category includes features of the work or of the profession which create a pressure on the student and on the practitioner. For example, the life or death responsibility of a physician is felt heavily by medical (both MD and DO) students who feel a special necessity for learning everything possible while in training, for developing emotional means of dealing with that responsibility, and for demanding a more than full-time dedication and commitment from themselves and their peers. An issue more widespread among the MODVOPPP professions has to do with the relative status of a profession vis-à-vis the medical profession. Particularly in the lesser known professions that are struggling with the medical profession for recognition and control over practice rights, the lower status is seen by male students to be a large obstacle to public acceptance.

ABSENCE OF OR DIFFICULTY IN GAINING ACCESS TO RESOURCES REQUIRED TO CONSIDER PROFESSION, BE ADMITTED TO SCHOOLS, OR ESTABLISH FULL PROFESSIONAL PRACTICE

Lack of Encouragement and/or Information

Given the rigors of training and the added pressures for women in a male profession, institutional and informal supports are vital. Women feel a lack of encouragement and support and at times experience direct discouragement. Particularly in the decision to pursue a profession the amount and extent of information and encouragement given women is vital. Although men spoke of a lack of information as an issue for them in the lesser known MODVOPPP professions, it is even more difficult for women. A related issue is access to information passed along informal networks that do not include women--e.g., fraternities, golfing partners, etc., giving helpful hints or suggestions for "how to get what you want" peculiar to the profession.

Access to the Profession's Informal Network of Practitioners

Women experience problems in this area both in training and when trying to obtain access to internships, residencies, or jobs. While in training, women report they are left out of the informal male network in which information is exchanged, support given, and friendships formed. These settings include fraternities, men's changing rooms, golf, and other athletic teams. Women worry that this will result in being left outside the referral and job network when they become practitioners. All students, male and female, worry about getting jobs, internships, and residencies. Women devote much of their energy in this regard to figuring out how to deal with the well-documented and well-known prejudices against women held by practitioners. This increases the pressure on women to "prove" themselves, reinforces the feeling that they aren't welcome in the profession, and most importantly, represents a real obstacle to women in getting through training and into professional practice. Jobs passed from fraternity brother to fraternity

brother, practitioners relying on informal recommendations from their friends regarding which applicants to accept to their practice, and prejudices about the abilities and competencies of women all result in important limits on women's access to these positions.

Absence of Appropriate Personal Characteristics and Attributes Required of Students, Practitioners

This problem was expressed in resentments and statements made by male students in their group interviews and by women in terms of the main stereotypes which the women feel are used to challenge their presence in the schools and in the professions. Frequently mentioned stereotypes include: "women are too emotional", "women are only accepted because they are women", "women are less dedicated", "women are only here to prove something", "women are not good at analytical thinking", "women are too indecisive to be good managers".

Absence of, Concern about Ability to Meet Formal Requirements of Students, Practitioners

This category of issues was mentioned only by men in most professions. It was expressed as concern about passing courses, passing the National Licensing Boards, etc.

Access to Financing

The financial burden of training is felt by both male and female students, but it is expressed to a different degree and in different contexts. For women it is harder to earn money before and while in training. The jobs available to women often pay less money, and in some professions where jobs are available to the untrained (e.g., veterinary clinic assistant), women are not given the jobs. While in training women report they believe it is more difficult for women to get adequate loans. Parents are often less willing to support a woman than a man through expensive and long training. Spouses are less often available as a source of support for women.

NEGATIVE ATTITUDES AND BEHAVIORS OF OTHERS

This category includes the constellation of attitudes, reactions, and behaviors which women face daily in the training environment.

Incidents of Sexism in the School

We heard many and various reports of jokes at the expense of women--e.g., denigrating comments, nudie slides in lectures, actions or comments aimed at embarassing or "putting down" women, intentional or unintentional use of language in such a way as to ignore or put down women. The majority of these incidents were performed by male peers or male faculty.

Resentments by Male Peers

This resentment is primarily expressed by male students in regard to competitive situations in the profession. For example, it includes resentments that women in school are taking a man's place, that women getting jobs means less for men. It also includes beliefs that women get special treatment by admissions committees, faculty members, and clinicians. Another source of resentment from male peers regards the amount of sexuality that is regarded

as appropriate in women. At some schools males express disapproval of the women for stepping outside the boundaries of a traditional woman's role, thus in some way challenging their own assumptions about and ways of dealing with women.

Client Prejudices

This category includes both real and anticipated problems with patient disbelief, distrust, and sometimes refusal to be treated by a female practitioner. The result of these prejudices is that while in training women may be denied important learning opportunities, while in practice it may be more difficult for them to get patients, and in all cases they must anticipate the necessity of proving their competence.

The Prejudices of Staff and Employees in Clinic Settings

In the professions that include a business or managerial component, prejudices and unwillingness of employees and staff to be supervised by a woman is particularly difficult. In all the professions, respect and acceptance as a professional by other health workers is essential. Women report that respect and acceptance are denied them because of their gender.

THE IMPACT ON ONESELF OF STRUCTURAL FEATURES, THE ATTITUDES, AND BEHAVIORS OF OTHERS, OF THE TRAINING PROCESS ITSELF

All of the above listed problems mentioned by women have some impact on their own feelings about themselves and their profession, on the choices they make, and on their behaviors.

Women's Double Binds

This category was variously described by women as "walking a very thin line", "damned if you do, damned if you don't", and "you can't win as a woman and as a professional." Standards of professional behavior conflict with standards of feminine behavior and women are caught in the middle, particularly in situations requiring aggressiveness, decisiveness, or managing others.

Women's Feeling That They Must Work Harder to Prove Themselves

The combined pressures and impact on women of stereotypes that challenge women's abilities, competencies and commitments result in women reporting the following kinds of problems: women fear making mistakes or taking risks; they fear speaking up or asking questions that might be considered stupid; they feel they have to work twice as hard to be recognized by faculty; women feel reluctant or unable to ask for any special support or help out of fear that the request would reinforce negative stereotypes about women.

Problems with Maintaining Relationships/Other Interests

This has most to do with the emotional strain, academic time pressures, and isolation of being a health profession student. Both male and female students feel cut off from friends not in training with them, and they experience problems in finding energy to devote to significant relationships and in lack of time to spend on other interests. While these problems were mentioned with equal emphasis by both men and women, for women the problems of isolation and being cut off from people outside of the training experience increases the difficulties they experience of being isolated within the training environment, too.

Competition and Academic Pressures

Only male students have expressed this as a concern in each profession, and it appears to be a central problem for them.

Feeling You Must Turn Off Your Emotions

Although related to double binds for women where expressing emotion is considered inappropriate as professional behavior, this is a specific issue that was raised by both men and women. Professional conduct and the pressures of dealing with many cases in a small amount of time demands a certain distancing on the part of the practitioner. Women and some men take issue with these demands because they feel it cuts off a part of them that is (and in their minds, should be) a part of their medical involvement.

Concern That The Training Process "Changes Who You Are"

Again, a concern shared by male and female students, this relates to all the ways in which they feel the professionalization process demands conformity to a single model of professional conduct and attributes.

Three Summary Checklists of Group Interview Issues follow. The first compares women's concerns among the eight MODYOPPP health professions included in this study; the second compares men's. The third compares men's and women's responses in this profession only.

FINAL REPORT: Pharmacy
CONTRACT: HEW OS-74-291
APPENDIX D

SUMMARY CHECKLIST OF FEMALE GROUP INTERVIEW ISSUES
COMPARATIVE MODVOPPP PROFESSIONS

	M	O	D	V	O	P	P	P
STRUCTURAL FEATURES								
Lack of Role Models	•	•				•		•
Lack of Support Group of Women		•				•		•
Tracked into Limited Specialties/Options	•	•	•	•		•	•	
Balancing Work/Family	•	•	•	•	•	•	•	
Women's Disadvantage in Background or Size		•	•	•				
Social Problems	•							
ABSENCE OR INADEQUACY OF FACILITIES	•	•	•	•		•		
CHARACTERISTICS OF THE PROFESSION AND ITS WORK								
Life and Death Responsibility								
Relative Status of the Profession					•			•
ABSENCE OF OR DIFFICULTY IN GAINING ACCESS TO RESOURCES								
Lack of Encouragement and/or Information	•	•	•	•	•		•	•
Access to the Informal Network	•	•	•		•	•	•	•
Absence of Required Personal Attributes	•	•	•	•	•	•	•	•
Absence or Concern about Meeting Formal Requirements			•			•	•	
Access to Financing	•	•	•	•	•	•	•	
NEGATIVE ATTITUDES/BEHAVIORS OF OTHERS								
Incidents of Sexism	•	•	•	•	•	•	•	•
Resentment by Male Peers	•	•	•	•	•	•	•	
Client Prejudices	•	•	•	•	•	•	•	
Staff/Employee Prejudices	•		•			•	•	•
IMPACT ON SELF OF TRAINING								
Double Binds	•	•	•	•		•	•	•
Women Feel Must Work Harder	•	•	•	•	•	•	•	•
Problems with Maintaining Relationships	•	•	•	•		•		
Competition and Academic Pressures								
Feeling You Must Turn off Emotions	•	•	•					•
Concern That the Training Process Changes You	•							

FINAL REPORT: Pharmacy
CONTRACT: HEW OS-74-291
APPENDIX D

SUMMARY CHECKLIST OF MALE GROUP INTERVIEW ISSUES
COMPARATIVE MODVOPPP PROFESSIONS

	M	O	D	V	O	P	P	P
STRUCTURAL FEATURES								
Lack of Role Models								
Lack of Support Group of Women								
Tracked into Limited Specialties/Options								
Balancing Work/Family								
Women's Disadvantage in Background or Size								
Social Problems								
ABSENCE OR INADEQUACY OF FACILITIES								
CHARACTERISTICS OF THE PROFESSION AND ITS WORK								
Life and Death Responsibility	•	•						
Relative Status of the Profession		•	•		•	•	•	•
ABSENCE OF OR DIFFICULTY IN GAINING ACCESS TO RESOURCES								
Lack of Encouragement and/or Information								•
Access to the Informal Network								
Absence of Required Personal Attributes								
Absence or Concern about Meeting Formal Requirements		•	•		•	•	•	•
Access to Financing	•	•	•	•		•	•	
NEGATIVE ATTITUDES/BEHAVIORS OF OTHERS								
Incidents of Sexism								
Resentment by Male Peers								
Client Prejudices								
Staff/Employee Prejudices								
IMPACT ON SELF OF TRAINING								
Double Binds								
Women Feel Must Work Harder								
Problems with Maintaining Relat...ships	•	•				•		
Competition and Academic Pressures	•	•	•	•		•	•	•
Feeling You Must Turn off Emotions								
Concern That the Training Process Changes You	•	•						

SUMMARY CHECKLIST OF GROUP INTERVIEW ISSUES

PHARMACY

	WOMEN	MEN
STRUCTURAL FEATURES		
Lack of Role Models		
Lack of Support Group of Women		
Tracked into Limited Specialties/Options		
Balancing Work/Family	o	
Womens' Disadvantage in Background or Size	o	
Social Problems		
ABSENCE OR INADEQUACY OF FACILITIES	o	
CHARACTERISTICS OF THE PROFESSION AND ITS' WORK		
Life and Death Responsibility		
Relative Status of the Profession		o
ABSENCE OF, OR DIFFICULTY IN GAINING ACCESS TO RESOURCES		
Lack of Encouragement and/or Information		
Access to the Informal Network	o	
Absence of Required Personal Attributes	o	
Absence or Concern about Meeting Formal Requirements		o
Access to Financing	o	o
NEGATIVE ATTITUDES/BEHAVIORS OF OTHERS		
Incidents of Sexism	o	
Resentment by Male Peers	o	
Client Prejudices	o	
Staff/Employee Prejudices	o	
IMPACT ON SELF OF TRAINING		
Double Binds	o	
Women Feel Must Work Harder	o	
Problems with Maintaining Relationships	o	
Competition and Academic Pressures		o
Feeling you must Turn off Emotions		
Concern that the Training Process Changes You		

APPENDIX E

SUMMARIES OF CHARACTERISTICS OF SCHOOLS AND INTERVIEW RESPONDENTS IN EIGHT MODVOPPP PROFESSIONS

SCHOOL VISIT SITE SELECTION BY CHARACTERISTICS

	# of Field Sites	Urban	Rural	North Central (1)	South	Northeast	West	Public	Private	Free-Standing	Univ. Affiliate	Physically Indep.	Medical Center	Part of Campus	High Status (2)	Low Status (2)	High % Women Enrolled (3)	Low % Women Enrolled (3)
Medicine	9	8	1	1	3	2	3	5	4	1	8	1	2	6	6	3	7	2
Osteo. Med. (4)	2	-	-	-	-	-	-	-	-	-	-	-	-	-	N/A	N/A	1	1
Dentistry	5	5	Ø	Ø	2	1	2	3	2	Ø	5	1	2	2	2	3	4	1
Vet. Med.	2	1	1	1	Ø	Ø	1	2	Ø	Ø	2	Ø	Ø	2	N/A	N/A	1	1
Optometry	2	2	Ø	Ø	Ø	1	1	1	1	1	1	1	Ø	1	1	1	1	1
Podiatry (4)	2	-	-	-	-	-	-	-	-	-	-	-	-	-	N/A	N/A	2	Ø
Pharmacy	3	3	Ø	Ø	Ø	1	2	1	2	1	2	1	1	1	1	2	2	1
Pub. Hlth.	2	2	Ø	Ø	1	Ø	1	1	1	Ø	2	1	Ø	1	2	Ø	2	Ø
TOTAL	27	21	2	2	6	5	10	13	10	3	20	5	5	13	N/A	N/A	20	7

(1) The four regions are comprised of the following states:

North Central: Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, Idaho, Wisconsin, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, Wyoming.

South: District of Columbia, Maryland, West Virginia, Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia.

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Delaware, New Jersey, New York, Pennsylvania.

West: Arizona, New Mexico, Oklahoma, Texas, Colorado, Alaska, California, Hawaii, Nevada, Oregon, Washington

(2) Where known or applicable, status is defined as the degree of respect accorded a given institution by members of the same profession.

(3) Higher or lower than the national proportion of women enrolled by profession.

(4) This information has been intentionally omitted since the combination of characteristics might identify which schools were visited. Thus totals for site characteristics do not add to 27.

SUMMARY OF INDIVIDUAL INTERVIEWS

		Administrator Interviews															Faculty Interviews								
	# of Schools	Deans, Presidents, Chancellors			Asst. or Assoc. Deans			Affirmative Action (1)			Other Admin. (2)			Total Admin.			Pre-Clinical Faculty			Clinical Faculty			Total Faculty		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Medicine	9	10	--	10	11	5	16	--	5(1)	5(1)	11	15	26	32	25	57	8	13	21	19	21	40	27	34	61
Osteo. Med.	2	3	--	3	4	--	4	--	--	--	4	1	5	11	1	12	5	--	5	4	6	10	9	6	15
Dentistry	5	5	--	5	13	--	13	--	--	--	1	4	5	19	4	23	5	3	8	16	5	21	21	8	29
Vet. Med.	2	1	--	1	4	--	4	--	1	1	3	2	5	8	3	11	2	2	4	9	5	14	11	7	18
Optometry	2	3	--	3	2	--	2	--	--	--	2	2	4	7	2	9	4	1	5	3	1	4	7	2	9
Podiatry	2	2	--	2	3	1	4	1	--	1	1	2	3	7	3	10	3	10	13	5	1	6	8	11	19
Pharmacy	3	3	--	3	6	--	6	--	--	--	5	6	11	14	6	20	4	3	7	5	4	9	10	7	17
Pub. Hlth. (5)	2	1	--	1	2	1	3	--	--	--	--	1	1	3	2	5	N/A	N/A	N/A	5	5	10	5	5	10
TOTALS	27	28	--	28	45	7	52	1	6	7	27	33	60	101	46	147	31	32	63	67	48	114	98	80	178

(1) Of the 5 Affirmative Action, 4 were university-wide and therefore covered, in three instances, dentistry, and in one instance, pharmacy, as well as medicine.

(2) Includes Registrars, Business Managers, Administrative Assistants, Directors of Special Programs, Centers, Institutes or Grants, Financial Aid Officers.

SUMMARY OF INDIVIDUAL INTERVIEWS (Continued)

Individual Student Interviews																		Intern & Resident Inte					
1st Year			2nd Year			3rd Year			4th Year			Unknown Or "Other" Students			Total Individual Students (3)			Site Admin.			Interns & Residents		
M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
6	21	27	4	13	17	2	9	11	1	5	6	2	13	15	15	61	76	3	1	4	9	11	20
3	3	6	1	2	3	2	4	6	--	1	1	--	--	--	6	10	16	←				N/A	
1	7	8	5	9	14	1	--	1	2	7	9	4	1	5	13	24	37	1	--	1	--	2	2
5	4	9	2	5	7	--	4	4	--	2	2	--	1	1	7	16	23	1	--	1	2	3	5
--	4	4	1	5	6	3	2	5	1	5	6	--	--	--	5	16	21	←				N/A	
--	1	1	--	2	2	1	2	3	4	2	6	--	--	--	5	7	12	1	--	1	3	--	3
--	1	1	--	5	5	1	7	8	1	2	3	6	7(4)	13(4)	8	22	30	←				N/A	
6	7	13	--	--	--	--	--	--	--	--	--	--	--	--	6	7	13	1	--	1	2	4	6
21	48	69	13	41	54	10	28	38	9	24	33	12	22	34	65	163	228	7	--	7	16	20	36

(3) Male students were not a key respondent group in the study until after submission of the Interim Report at which was expanded to include them in greater numbers. The imbalance between male and female student interviews remain half of the schools in the study (14 of 27) prior to the Interim Report.

(4) Includes 1 fifth-year and 1 sixth-year student.

(5) Hospital Administration and Epidemiology faculty and students combined. Due to varying lengths of training progr students arbitrarily counted as first-year students.

SUMMARY OF INDIVIDUAL INTERVIEWS (Continued)

Individual Student Interviews												Intern & Resident Interviews									Total Respondents		
3rd Year			4th Year			Unknown Or "Other" Students			Total Individual Students (3)			Site Admin.			Interns & Residents			Total Admin., Interns & Residents					
M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
2	9	11	1	5	6	2	13	15	15	61	76	3	1	4	9	11	20	12	12	24	86	132	218
2	4	6	--	1	1	--	--	--	6	10	16	←				N/A				→	26	17	43
1	--	1	2	7	9	4	1	5	13	24	37	1	--	1	--	2	2	1	1	2	54	37	91
--	4	4	--	2	2	--	1	1	7	16	23	1	--	1	2	3	5	3	3	6	29	29	58
3	2	5	1	5	6	--	--	--	5	16	21	←				N/A				→	19	20	39
1	2	3	4	2	6	--	--	--	5	7	12	1	--	1	3	--	3	4	--	4	24	21	45
1	7	8	1	2	3	6	7(4)	13(4)	8	22	30	←				N/A				→	32	35	66
--	--	--	--	--	--	--	--	--	6	7	13	1	--	1	2	4	6	3	4	7	17	18	35
10	28	38	9	24	33	12	22	34	65	163	228	7	--	7	16	20	36	23	20	43	287	309	595

a key respondent group in the study until after submission of the Interim Report at which time the study's focus them in greater numbers. The imbalance between male and female student interviews remains because URSA visited the study (14 of 27) prior to the Interim Report.

nd 1 sixth-year student.

and Epidemiology faculty and students combined. Due to varying lengths of training programs, all Public Health unted as first-year students.

MODVOPPP GROUP INTERVIEW SUMMARY

	Male		Female		Mixed		Total	
	# of Groups	Estimated Average N=7	# of Groups	Estimated Average N=7	# of Groups	Estimated Average N=8	# of Groups	Estimated Total
Medicine	4	28	13	91	--	--	17	119
Osteo. Med.	3	21	3	21	1	8	7	50
Dentistry	1	7	8	56	1	8	10	71
Vet. Med.	--	--	5	35	3	24	8	59
Optometry	2	14	3	21	1	8	6	43
Podiatry	1	7	2	14	--	--	3	21
Pharmacy	2	14	6	42	1	8	9	64
Pub. Hlth.	1	7	1	7	--	--	2	14
TOTAL	14	98	41	287	7	56	62	441